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"ILLOGICALITY" IN JAPANESE SMALL BUSINESS

—A Comparative Survey of Earnings of Small Manufacturing
Plants in Japan, Britain and the United States—

By TOKUTARO YAMANAKA

Professor of Economic Policy and Labor Problems

I

Any study of the problem of small business in Japan must reckon with some fundamental factors which would seem unique to Japan seen from Western eyes. First, in Japan, the problem is that of "medium-small" business instead of "small" business. In other words, it is generally thought that in her industrial structure there exists a big group or stratum which might be termed "medium-small" business.

In Western countries, large, medium or small are different categories of size of business. However, in Japanese eyes, small and medium enterprises form an inseparable group vis-à-vis large enterprise. Literally speaking, the expression may be ambiguous or unscientific, but on the other hand, it is also undeniable that there exists one group, however heterogeneous in composition, which has peculiar characteristics as compared with ordinary or "large" capitalist enterprises. Moreover, though not so popular as in Japan, we find a few cases where similar expressions are in use, for example, "petites et moyennes entreprises" in France or Belgium. The expression in Japan means, therefore, that her "small" business is composed of heterogeneous elements. Nevertheless, these elements form one group in contrast to other sectors of her industry and they have some common features other than their common size.

Second, the classical and original type of small industry was those small

producers under the old handicraft or putting-out system. They were first called small industry when they confronted the competition raised by the newly born capitalist factory system. This experience of fatal struggle was more or less general during the industrial revolutions in Western countries. However, this transition period in Japan was fairly short and unique, not being accompanied by the same small industry problem as in Europe. As a whole, Japan's traditional small industries existed side by side with large mills imported from the West during the period. Rather, in her case, this co-existence served to achieve the transformation to a capitalist production system, a transformation which was at first full of obstacles to be overcome.¹

Third, the internationally recognized tendency is that size of plants in manufacturing became larger in various countries during the inter-War period. According to statistics compiled by the International Labor Organization,² Japan followed this general tendency. The ratio of the number of workers employed in establishments with 1000 or more employees to the total number of workers in establishments employing 10 or more workers was over 22% for Japan (1951). This rate of concentration was lower only than that in the United States (1947) and the United Kingdom (1949) in the I.L.O. report. Yet, although Japan has followed the general trend toward larger units, there has been a concurrent tendency which is somewhat unique. According to the I.L.O. report, though it remarks that statistics in small establishments are valueless for international comparison on account of differences in coverage, the number of employees in small establishments employing less than 10 persons in Japan has grown in proportion to the total number of employees in manufacturing a trend opposed to that of small plants in most other countries during this period. Though these comparisons are taken from statistics compiled by different methods in the various countries, they may suffice to make it clear that in Japan there exists a peculiar two-way concentration toward both larger and smaller industrial units. I have given this two-way concentration, which has persisted in Japan for some forty years, the name "concentration toward two poles or extremes". One of my colleagues called it a "double-humped camel" type of concentration.

Fourth, we must note the fact that the role of smaller plants in Japan is very large compared with other industrialized countries. As seen above, they not only survive but also increase. Examination of the annual Japanese census of manufactures since 1950 emphasizes this point. This census, organised along lines of similar statistics published in the United States, is not free from defects, but does enable fairly correct statistical comparisons such as that presented in Table 1 (data for the United Kingdom also added). Because small business units naturally dominate the distributive or service trades in every country, data

¹ As to the problem at that time, see my article, "Japanese Small Industries during the Industrial Revolution", *The Annals of the Hitotsubashi Academy* (Hitotsubashi University, Tokyo, Japan), Vol. 2, No. 1 (Oct. 1951).

² "The Size of Industrial Establishments", *International Labour Review* (I. L. O. Geneva), Vol. LXXIII, No. 6 (June 1956).

for this sector is omitted here.

Even in manufacturing, plants with less than 50 employees are numerous in all three countries. They comprise more than 80% of the total number in the United States as well as in the United Kingdom; while in the case of Japan, they constitute nearly 97% of the total. However, employment figures clearly show

Table 1. *Number of Plants and Employment in Manufacturing by Size of Plant*

Size of Plant (employees)	Number of Plants (%)			Number of Employees (%)		
	Japan	United Kingdom	U.S.A.	Japan	United Kingdom	U.S.A.
1~ 9(1~10)	77.8	77.1*	48.6	19.9	9.6*	3.3
10~ 49(11~49)	19.1	13.0*	33.5	29.0	10.8*	12.6
50~ 99	1.7	4.3	7.7	9.3	9.6	9.1
100~499	1.2	4.6	8.3	18.4	31.0	29.1
500~999	0.1	0.6	1.1	7.1	12.4	13.2
1000~	0.1	0.4	0.8	16.3	26.6	32.7
Total	100.0	100.0	100.0	100.0	100.0	100.0

Japan: Census of Manufactures, 1953; United Kingdom: Census of Production, 1949; U.S.A.: Census of Manufacture, 1947. Figures with * are for sizes in parentheses.

that small plants are far more important in Japan than in other countries. In Japan, nearly half of all workers in manufacturing are employed in plants with less than 50 persons, while only about 16% in the United States and 20% in United Kingdom are found in this category.

Table 2. *Employment in Manufacturing by Size of Plant (1950=100)*

Size of Plant (employees)	1950	1951	1952	1953	1954	1955
4~ 49	100.0	109.5	113.3	120.5	127.6	133.4
50~199	100.0	109.7	113.8	127.7	126.1	139.4
200~	100.0	110.1	108.4	117.4	115.7	117.9
Total	100.0	109.8	111.5	120.7	122.8	128.6

Census of Manufactures.

Moreover, as seen in Table 2, the importance of small plants in Japan has increased during the period since 1950. Except for 1951, growth in employment was absorbed chiefly by plants employing less than 200 persons. While the rate of growth of employment in plants with more than 200 persons was, in general, less than the average, that of plants with less than 50 employees was higher than the average. Furthermore, estimates of growth in the labor force made by the government statistics office show that the largest increase was in retail trade, which is composed chiefly of small business. Thus, not only in distributive trades,

but also in manufacturing, employment in small establishments is growing in present day Japan. According to studies by the Japanese Fair Trade Commission, concentration of productive power in the hands of a few large firms is also an established fact in many branches of trade and industry. Still, small establishments continues to grow increasingly important in Japan.

The foregoing discussion seems to indicate that the Japanese industrial structure is a favourable milieu for small business. Yet, such an interpretation is rather superficial, because the existence, as well as the growth, of small business in Japan rests on certain conditions which economically seem unsound. This is the chief theme of this article.

II

Generally speaking, as the above I.L.O. report states, recent economic development points to the decline of small plants as a result of the trend toward large scale establishments.

Of course, even with this general trend, small businesses will not be extirpated. There will always be economic conditions which make possible the existence of small businesses. When demand is local, irregular, limited or special, small business units are of optimum size. Firms are also small when supply depends on labor, skills or raw materials which can be obtained only locally, irregularly or under limited conditions. Thus, basic materials such as iron and steel, chemical goods and textile yarns are produced by large mills, while goods produced at later stages of manufacturing, such as garments, furniture and confectionery, are often left in the hands of small producers.

In the process of modern economic development, even production which had long been accomplished on a small scale, such as shoe making and tailoring, has been transferred to large scale industry in many cases. However, as seen in many countries, this process does not sweep away all small firms. Various explanations focusing on the optimum size of business have been offered by Western economists, from Marshall to Steindl, for this phenomenon.

Of course, the development of industrialization has given birth to new conditions for small business concerns. For example, as a result of industrialization, a new source of power—small electric motors—has become available to small plants. Formerly, steam power was not available to small firms. Also standardization of parts has opened a wide area of specialization in the production of such products as automobiles and sewing machines. This, in turn, has provided a new means of existence for small plants. Moreover, the development of new techniques for making machinery has reduced the price of many machines, made them smaller and put them within the reach of small producers. This machinery, together with the new source of power, has made the position of the small plants of today far different from that of those in the early days of the Industrial Revolution.

Also, the case of so-called localized industry given by Marshall should be added. It has been proved in many countries that, as a result of external economies, various small plants clustered in a particular locality can operate profitably in the manner of a single large plant.

There are further causes which make it possible for small plants to exist. It is often said that government policy acts as a bulwark for small scale, traditional and local industry, as in the case of the German spirit distilleries except the beer industry. Also, an unorganized local labor supply in a locality removed from a large industrial center might provide an opportunity for small businesses to exist. Such requisites for existence are rather irrational or uneconomic compared with those mentioned above. They operate only to provide small business with a limited sphere of activity.

The foregoing discussion might provide some explanation for the continued survival of small business. However is it sufficient to explain the status of small business in Japan, or the fact that small business in Japan has not only survived but has continued to grow at a faster rate than in Western countries? In the present article, a statistical approach is made to such questions, utilizing figures of per capita value added of plants from the Census of Manufacture. This source contains per capita value added figures for Japan since 1950. The figures cover more than 400 manufacturing industries, each classified by size of plant. Though not complete satisfactory for our purpose, especially because the figure of business is not available, these figures shed some light on the situation of small industry in Japan.³

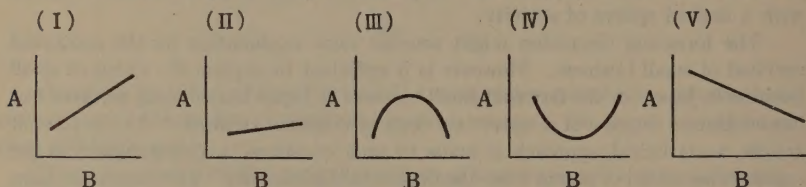
III

Each industry or trade ordinarily has its own size structure in a given national economy at a given time. As it may be supposed that a certain technical organiza-

³ Value added is derived by subtracting from the total value of shipment the total cost of materials used (including that of pieces put out or contract work) and fuel or electric energy consumed. Per capita value added is the total annual value added by a plant divided by the number of employees in the plant. Per capita value added has many defects as a "quasi-criterion" of optimum size. 1) It does not correctly reflect the rate of profit. 2) The figures are for plants or establishments, so nothing is known about the enterprise itself. 3) The figures used in this analysis are for one year only. 4) The costs subtracted from the value of the shipment include only the cost of materials and fuel or energy, so the so-called value added figure includes such costs as overhead charge, selling costs, and head office managing costs, as well as cost of redemption. 5) In this article, in order to obtain per capita value added, annual total value added was divided by the number of employees on fixed date. Hours worked and the like were not considered. 6) Size of plant, classified by number of employees, does not necessarily coincide with size of plant classified by capital invested. 7) Though it is better to have data covering all sizes of plants, plants with less than 10 employees are omitted in the tables. This is because data concerning business activities are less reliable for these small plants and also because family workers, who receive no fixed compensation but weigh heavily at least in these small plants, are included in the census of manufacture of Japan while they are excluded from that of U.S.A.

Despite deficiencies in methods and data, these value added figures throw a new light upon the problem of Japanese small business. They are comparable to those of the United Kingdom and, especially, those of the United States, because Japanese census methods are similar to those used in the United States.

tion will prevail in an industry notwithstanding differences in size of plants, per capita value added by size of plant will disclose the character of the industry. Industries may be classified to several types according to the relation of size of plant to per capita added value. In the first case, the larger the plant, the higher the per capita value added; in the second, this correlation is much lower; in the third, medium size plants have the highest per capita productivity, with smaller and larger plants both being lower; in the fourth, medium size plants show the lowest productivity, both smaller and larger plants being higher; and in the fifth, the smaller the plant the higher the per capita productivity. The curves for these five cases are shown below. Of course, there can occur such irregular relations between size of plant and productivity that it is impossible to draw any curve.



A=productivity; B=size

To examine the relationship between size of plant and per capita value added in Japan, Table 3 was compiled from data given in the 1952 Japanese Census of Manufactures (Plants with less than 4 employees are excluded because the figure of value added is not published). In contrast to the five cases given above the census data was classified into three categories. Category A corresponds to case five; B includes cases three and four, above, and industries in which value added is uniform regardless of the size of plant; and C combines cases one and two above. Although the Census covers 425 industries, the following industries are not included in Table 3: 73 industries whose nature is so complex as to virtually preclude treatment as individual industries, e.g. those described as "not elsewhere classified" or "miscellaneous"; 17 industries having only a single size unit; and 15 industries in which trends are so irregular that they cannot be classified in any of the three categories.

Of the remaining 320 industries, 34 (group 1) are composed of various sizes of plants employing from 4 to 29 workers (including 5 of plants employing from 4 to 19 workers, and of plants employing from 10 to 29); 37 (group 2) are composed of plants employing from 4 to 49 workers (including 1 of plants employing from 10 to 49); 60 (group 3) of plants employing from 4 to 99 workers (including 4 of plants employing 10 to 99); 60 (group 4) of plants employing from 4 to 199 workers (including 2 of plants employing from 10 to 199, and 1 of plants employing from 30 to 199); 77 (group 5) of plants employing from 4 to 499 workers (including 5 of plants employing from 10 to 499 and 1 of plants employing from 20 to 499); 24 (group 6) of plants employing from 4 to 999 workers (including 2 of plants

Table 3 *Industries Classified by Relationship between Per Capita Value Added and Size of Plants*

Industry Group by Size of Plants (number of employees)	Number				Percentage			
	Categories of Industries Classified by Trends of Per Capita Value Added							
	Total	A	B	C	Total	A	B	C
1. including sizes of plants employing 4—29 workers	34	5	11	18	100.0	14.7	32.3	52.9
2. including sizes of plants employing 4—49 workers	37	7	3	27	100.0	18.9	8.1	73.0
3. including sizes of plants employing 4—99 workers	60	3	14	43	100.0	5.0	23.3	71.6
4. including sizes of plants employing 4—199 workers	60	0	8	52	100.0	0	13.3	86.6
5. including sizes of plants employing 4—499 workers	77	3	14	60	100.0	3.9	18.2	78.0
6. including sizes of plants employing 4—999 workers	24	0	3	21	100.0	0	12.5	87.5
7. including sizes of plants with em- ployees from 4 to more than 1000	20	0	1	19	100.0	0	5.0	95.0
8. including sizes of plants employing at least 100 worerks	8	5	0	3	100.0	62.5	0	37.5
Total	320	23	54	243	100.0	7.1	16.8	75.9

Based on data contained in the Japanese Census of Manufactures (1952). Industries in which per capita value added decreases, in general, as size of plants increases comprise category A. Industries in which the reverse is true comprise category C. Category B is formed by industries not included in categories A or C.

employing from 10 to 999, and 3 of plants employing from 20 to 999); 20 (group 7) of plants employing from 4 to more than 1000 workers (including 2 of plants employing from either 10 or 20 to more than 1000); 8 (group 8) of larger plants only (including 2 of plants with at last 100 employees, 3 with at least 200, and 3 with at least 500).

Of these 320 industries, 243 (more than 75%) belong to category C, while industries which belong to category A number only 23 (7%). Thus, for nearly three fourths of Japanese industry, increasing returns to scale is the rule. Besides, those industries in which the reverse is true are not only few but also have a special characteristic. Of the 23 industries in category A, 12 are in groups 1 and 2, while 5 are in the 8 industries of group 8. In other words, 17 of the 23 industries with decreasing returns to scale are included among industries composed of either only small or only bigger plants. Thus, Table 3 indicates that, in Japan, small plants coexist with large plants throughout industry, even though they earn a poorer return.

Of course, we should not exaggerate the import of Table 3. It shows only the number of industries, the relative weights of the various industries in terms of employment, total production or aggregate value added not being considered.

Further, categories A, B and C represent only roughly the relationship of per capita value added to size. The degree of irregularity or slope and the height of the trend curves are also omitted from consideration.

Nevertheless, it seems undeniable that this analysis, however incomplete, indicates that small plants in Japan have a status different from their counterparts in Britain.⁴ In Western experience, small size does not necessarily signify lower productivity. In Japan, in three cases out of four, smallness seems to mean lower earnings than for competitors of larger size, even though the number of small plants is overwhelming.

If the highest per capita value added is a proper criterion for determining "quasi-optimum" size of plants, the plant size which has the most employees in an industry

Table 4. *Industries Classified by Size of Plant with the Highest Per Capita Value Added in the Industry.*

Industrial Group	Japan (1952)							U.S.A. (1949)						
	10 }	20 }	50 }	100 }	200 }	500 }	Total	10 }	20 }	50 }	100 }	250 }	500 }	Total
	19	49	99	199	499			19	49	99	249	499		
Food	7	10	9	6	4	1	37	6	5	6	11	7	7	42
Textiles	5	6	7	11	1	8	38	6	5	5	3	4	11	34
Apparel	1	4	1	—	3	—	9	14	6	7	9	3	3	42
Lumber & wood products	8	8	5	—	1	—	22	2	1	4	6	1	2	16
Furniture	2	4	2	1	—	—	9	1	2	1	3	6	3	16
Paper	—	2	3	2	1	2	10	2	—	5	3	1	—	11
Printing	3	2	—	3	—	2	10	3	1	3	3	2	4	16
Chemicals	6	6	5	8	6	5	36	7	13	1	8	7	5	41
Petroleum & coal products	3	4	1	—	2	—	10	1	1	4	1	1	—	8
Rubber	2	3	1	2	1	1	10	—	—	—	—	2	2	4
Leather	2	5	2	1	—	—	10	2	3	2	1	3	1	12
Stone, clay & glass products	4	10	7	5	5	3	34	2	5	7	6	5	5	30
Primary metals	2	2	4	6	6	5	25	—	4	4	4	5	3	20
Metal goods	—	16	2	9	7	—	34	6	—	6	7	8	4	31
Machinery	2	3	3	10	12	4	34	2	4	5	8	10	10	39
Electrical machinery	2	—	6	4	8	4	24	—	1	2	4	6	8	21
Transportation equipment	—	1	1	1	3	5	11	1	2	2	3	2	4	14
Professional instruments	—	4	4	—	3	2	13	—	1	3	2	—	4	10
Miscellaneous	13	10	7	7	4	—	41	5	7	6	9	7	7	41
Total	62	100	70	76	67	42	417	60	61	73	91	80	83	448

Based upon data contained in the Census of Manufactures of Japan (1952) and Census of Manufacture of the United States (1947). 8 industries in Japan are omitted because of incomplete statistics. For both countries, plants with less than 10 employees are omitted for the same reason.

⁴ For example see Colin Clark, *The Conditions of Economic Progress*, London, 1940; L. Rostas, *Productivity, Prices and Distribution in Selected British Industries*, Cambridge, 1948.

may be optimum for that industry. Based on this assumption, I will refer to an international comparison between Japan and the United States.⁵

Table 4 shows that, of a total of 417 industries in Japan, 62 have their highest per capita value added in plants with 10-19 employees, 100 in plants with 20-49 employees, 70 in plants with 50-99 employees, 76 in plants with 100-199 employees, 67 in plants with 200-499 employees, and 42 in plants with 500 or more employees. Of 448 industries in the United States, 60 have maximum per capita value added in plants with 10-19 employees, 61 in plants with 20-49 employees, 73 in plants with 50-99 employees, 91 in plants with 100-249 employees, 80 in plants with 250-499 employees, and 83 in plants with 500 or more employees. Of course, this distribution is different for the various groups of industries in the two countries. For example, in Japan, 7 of the 37 industries belonging to the food group attain their highest per capita value added in plants with 10-19 em-

Table 5. *Industries Classified by Prevailing Size of Plants*

Industrial Group	Japan (1952)							U.S.A. (1947)						
	10 }	20 }	50 }	100 }	200 }	500 }	Total	10 }	20 }	50 }	100 }	250 }	500 }	Total
	19	49	99	199	499	19		49	99	249	499	19	49	
Food	17	11	2	5	2	—	37	1	5	15	11	3	7	42
Textiles	11	9	8	3	2	5	38	—	—	5	8	14	7	34
Apparel	4	4	1	—	—	—	9	3	13	15	10	1	—	42
Lumber & wood products	17	5	—	—	—	—	22	—	2	7	6	1	—	16
Furniture	4	5	—	—	—	—	9	—	2	4	6	3	1	16
Paper	1	6	1	—	2	—	10	—	—	2	4	5	—	11
Printing	5	3	—	1	—	1	10	—	3	4	4	5	0	16
Chemicals	7	6	5	8	3	7	36	—	7	11	9	5	9	41
Petroleum & coal products	2	5	1	—	2	—	10	—	1	4	1	1	1	8
Rubber	2	3	1	2	2	—	10	—	—	—	—	—	4	4
Leather	6	3	1	—	—	—	10	—	2	5	3	2	—	12
Stone, clay & glass products	9	16	2	3	2	2	34	2	4	5	4	6	9	30
Primary metals	3	4	—	3	7	5	25	—	—	3	2	7	11	20
Metal goods	12	14	7	1	—	—	34	—	2	6	7	9	7	31
Machinery	1	14	11	2	5	1	34	—	—	1	6	9	23	39
Electrical machinery	—	5	5	4	7	3	24	—	—	—	2	4	15	21
Transportation equipment	1	2	2	—	3	3	11	—	—	1	3	1	9	14
Professional instruments	1	4	6	1	1	—	13	—	—	—	1	2	7	10
Miscellaneous	9	18	3	2	—	—	41	—	7	9	14	6	5	41
Total	121	137	59	35	38	27	417	6	48	94	101	84	115	448

See notes for Table 4.

⁵ Tables 1, 4-9 were prepared with the collaboration of Mr. Kikutaro Takizawa, Lecturer of the Economics Faculty, Nagoya University. This is part of the research assigned to him as a member of a study commission on small business problems which is composed, mainly of university professors and of which I am the chairman since 1948.

ployees, while in the United States the figure is 6 out of 42 industries. In the machinery group, only 2 of the 34 Japanese machine industries yield their highest per capita value added in plants with 10-19 employees, while in the United States 2 out of 39 do so when plants are of this size.

Table 5, classifies the same industries from the standpoint of the prevailing size of plant in each. The number of employees in plants of the same size rather than the number of plants is used in determining the relative importance of various plant sizes in the industry.

A simple method was used for purposes of classification for Table 5. That is, the point of 50% in the distribution of the total number of employees in an industry was used to determine prevailing size in the industry. Employees in the industry were grouped according to the size of plants in which they worked. Then, the number of employees in each size group were added, from smallest to largest, until the group was reached where the number of workers therein, added to the number of all workers in smaller plant size groups in the same industry, constituted more than half of the total number of workers in the industry. The industry was then classified in the plant size category where the midpoint was reached. That size group was said to "prevail" for that industry.

When this classification is applied to 417 Japanese industries, the prevailing size of plant for 121 industries is the plant with 10-19 employees, for 137 industries, it is the plant with 20-49 employees, for 59 the plant with 50-99 employees; for 38, the plant with 200-499 employees and for 27, the plant with 500 or more employees. For industries in the United States, the distribution is different. Industries in which the determining 50% point occurs at larger plant sizes are far more numerous than those in which it occurs at small sizes.

To what degree does prevailing size, as shown in Table 5, coincide with the size of plant having the highest per capita value added, as seen in Table 4? Table 6 is a simplification of the combined results of the two previous tables. The six size groups in these tables are reduced to four groups ranging from plants with 10-19 employees to plants with 200 or more (for the United States, 250 or more) employees. Type I is composed of industries in which plants that have over 200 (250 for the United States) employees prevail. This type shows concentration in large size plants. Type II comprises industries in which the prevailing size of plant is one employing 50-199 workers (50-249 for the United States). Industries in which the prevailing size of plant is one with less than 50 employees make up type III. This type shows concentration in small size plants. Type IV contains only those industries with plants of less than 50 employees. Table 6 shows the distribution of the 417 Japanese and 448 American industries when classified by prevailing size of plant into the four types given above, and when they are further classified by the size of plant which has the highest per capita value added. Out of 65 Japanese industries in type I, 51 find their highest per capita value added in plants with 200 or more employees. Thus, in nearly 80% of those Japanese industries in which plants employing more than 200 men prevail,

Table 6. *Industries Classified by Prevailing Size of Plant and Size of Plant Having the Highest Per Capita Value Added*

Type of Industry (prevailing size as determined by employee distribution)		Maximum of per-man added value				
		Size of Plant (number of em- ployees)	Industries			
			Number		Percentage	
			Japan	U.S.A.	Japan	U.S.A.
I	Concentration in large size plants (Japan: 200 or more workers; U.S.A.: 250 or more workers)	10~19	2	14	3	7
		20~49	1	23	2	12
		50~99	3	24	5	12
		100~199	8		12	
		(100~249)		28		14
		200~ (250~)	51		78	
		total	65	110	100	55
			199	100	100	
II	Concentration in medi- um size plants (Japan: 50-199 work- ers; U.S.A. : 50-249 work- ers)	10~19	2	28	2	14
		20~49	7	21	8	11
		50~99	21	40	22	21
		100~199	26		28	
		(100~249)		53		27
		200~ (250~)	38		40	
		total	94	53	100	27
			195	100	100	
III	Concentration in Small size plants (less than 50 workers)	10~19	8	15	5	32
		20~49	34	13	23	28
		50~99	45	11	30	23
		100~199	43		29	
		(100~249)		8		17
		200~ (250~)	20		13	
		total	150	—	100	—
			47	100	100	
IV	Small size plants only (less than 50 workers)	10~19	50	3	46	43
		20~49	58	4	54	57
		total	108	7	100	100
Total			417	448		

See notes for Table 4.

large size plants are the most productive, judged in terms of per capita value added. The same tendency is seen in the United States, though to a lesser degree (namely, 110 out of 199 industries, or 55%).

Nearly half the industries in type II are industries in which medium size plants give the best per capita value added results. The results are fairly parallel in the two countries. However, for this type, not too much stress should be placed on the coincidence between prevailing size and most productive size, because

the method used to determine prevailing size for an industry was designed chiefly to show concentration in large and small size plants.

Type III industries, where there is a tendency towards small size plants, number 150 in Japan—more than three times the figure for the United States. Of these Japanese industries, in which the prevailing plant size is less than 50 employees, barely 40 (28%) are at the same time industries in which per capita value added is highest with this plant size. For the United States, the corresponding figures are 28 out of 47 industries (nearly 60%).

As to type IV, it is sufficient to note that industries in this group are far more numerous in Japan than in the United States.

The following conclusions can be drawn from the above analysis. In both Japan and the United States, more than half the industries in which large size plants prevail are also industries in which this size yields the highest per capita value added. In the medium size industries too, many instances are found where medium size appears to be the optimum, although the percentage is somewhat lower than for the industries with large plant size predominant. For Japanese industries in type III, composed chiefly of small size plants, the correlation of prevailing size with optimum productive size is significantly lower than for either of the previous types; but this observation does not hold true for American industries.

As a whole industries in the United States show a tendency toward plant sizes larger than the optimum. In Japan the opposite trend is discernible, there being many more examples than in the United States of industries whose prevailing size of plant is smaller than the size of plant which yields the highest value added per employee. In other words, the large number of small plants in Japan seems to contravene the logic of optimum size.

IV

For a more accurate realization of the significance of plant size, it is desirable to examine further the differences in average per capita added value among various sizes of plants. Table 7 presents an index of average per capita value added for 7 groups of plant size. The figures are averaged for whole industries, and calculated on the basis of 100 for plants with 1000 or more employees.

According to Table 7, the index number for average per capita value added decreases as plant size decreases in the United Kingdom. However, in Japan and the United States, the highest average per capita value added is found in plants with 500~999 employees, the index number decreasing regularly as plant size decreases, as in British industry. Thus, the pattern of value added for various plant sizes in Japan does not seem at all unique. Nevertheless, closer examination reveals a remarkable difference between Japan and the other two countries. The difference in value added between the smallest and largest plant size is about 10 points for the United States as well as for the United Kingdom. For Japan,

Table 7. *Average Per Capita Value Added by Size of Plants in Manufacturing in Japan (1952), United Kingdom (1949) and U.S.A. (1947)*

(Plants with 1000 or more employees=100)

Size of Plant (number of employees)	Value Added		
	Japan	United Kingdom	U.S.A.
10~19 (11~24)	36.3	90.0*	89.0
20~49 (25~49)	45.4	92.2*	93.3
50~99	58.5	93.8	97.2
100~199 (100~249)	70.8	95.6	101.5*
200~499 (250~499)	94.1	96.7	103.9*
500~999	103.7	98.1	104.9
1000~	100.0	100.0	100.0

Numbers with asterisks are for sizes in parentheses. Based on data from census of manufactures or of production.

however, the gap exceeds 60 points—six times as much as for the other two countries.

Of course, per capita value added depends to a large extent upon the technical or capital structure of an industry. If Japanese industry differs greatly from industry in other countries in this respect, average per capita value added can be expected to differ also. Table 8 shows average per capita value added for various groups of industry in Japan, the United Kingdom, and the United States. Though the British classification is somewhat different from those for the other two countries, the industry groups for each country are arranged in the order of their average per capita value added, the group with the highest average being given the index number 100.

With allowance for a few inevitable irregularities, there is a common pattern for the three countries. In each country, the chemicals and paper groups have a high index number; the machine and stone-glass groups fall into an intermediate category; and the textiles, clothing and wood products groups are included in a lower category. The primary metals group, which in Japan and Britain has a high index number, falls into the intermediate category in the United States; but the food group, which has a high index number in Britain and the United States, drops into the intermediate category in Japan. The index numbers for the leather group vary remarkably among the three countries.

Although the ranking of the various industry groups is somewhat similar in the three countries, the magnitude of difference between highest and lowest average value added per employee varies considerably. The margin of difference between index numbers of the highest and the lowest industrial groups is 48 points for Britain, 59 points for the United States, and 79 points for Japan.

It is not likely that the technical organization of production in each industry

Table 8. *Indices of Average per Capita Value Added in Various Groups of Industry*

Japan (1952)		U.S.A. (1947)		United Kingdom (1949)	
Petroleum & coal products	100	Petroleum & coal products	100	Chemicals	100
Paper	64	Chemicals	89	Food	98
Chemicals	61	Paper	67	Primary Metals	87
Primary metals	50	Food	66	Leather	86
Printing & Publishing	49	Printing & Publishing	57	Paper & Printing	81
Electrical machinery	49	Machinery	54	Miscellaneous (including rubber)	73
Rubber	46	Metal goods	54	Glass, cement, etc.	73
Transportation equipment	43	Transportation equipments	53	Precision instrument, etc.	72
Food	41	Primary metals	53	Machinery	72
Stone, clay & glass products	40	Rubber	53	Vehicles	69
Machinery	37	Stone, clay & glass products	53	Textiles	69
Leather	33	Electrical machinery	52	Lumber & furniture	63
Metal goods	32	Professional instruments	49	Clothing	52
Professional instruments	31	Miscellaneous	47		
Textiles	28	Textiles	45		
Miscellaneous	24	Furniture	45		
Lumber & wood products	22	Apparel etc.	43		
Apparel etc.	21	Leather	42		
Furniture	21	Lumber & wood products	41		

Based on Census of manufacture or production.

Index number of industrial group with the highest per capita value added in each country=100.

in Japan is so different from that in the other two countries. Therefore, the index number for such groups as textiles and apparel in Japan is very low compared with that for those groups in the other two countries. This lowness is intensified when we compare value added in terms of international prices. However, it should be noted that it is natural for average per capita value added to differ by industry in all countries.

To briefly summarize, the margin between highest and lowest per capita value added in Japan seems to depend more upon size of plant than upon difference among various industry groups. Although the margin between industry groups in Japan appears large, it is less than twice as large as that in the United Kingdom or the United States. However, according to Table 7, the margin between large and small size plants in Japan is nearly six times larger than that in the other two countries.

The investigation can be furthered by examining a few selected industries in which various plant sizes co-exist and the sphere of production seems fairly similar in Japan and the United States. The industries chosen for this purpose

are (1) broad woven cotton and spun rayon fabric, (2) broad woven woolen and worsted fabric, (3) gray-iron foundries, (4) textile machinery, (5) sewing machines, (6) ball and roller bearings, (7) electric lamps and (8) bicycles. The average per capita value added for various plant sizes in each industry is shown in the form of an index number in Table 9. The index number of 100 is that for the largest plant size for that industry in Japan. Of course, this may not be the largest plant size for that industry in the United States.

Though only a few industries are examined, the results indicated in Table 8 seem to sustain those in Table 7. In the United States, it is not the rule that the smaller the size of plant, the smaller the per capita value added. Also, the margin between highest and lowest per capita value added does not exceed 50 points, except in the sewing machine and electric lamp industries. However, in Japan a trend curve is followed fairly commonly by the index numbers in each industry. In general, the larger the size of plant, the greater the value added, some deviations being perceptible only in the ball and roller bearing industry and gray-iron foundries.

V

It seems clear that the foregoing data⁶ is sufficient to raise at least two basic questions concerning small plants in Japan. First, why is per capita value added in small plants so low relative to that in large plants? Second, why do small plants exist in such large numbers and continue to increase when they are subject to such disadvantages? Adequate answers to these two questions would require treating the entire problem of small business in Japan⁷.

⁶ As shown in the following table the structure of Japanese industry does not appear to have changed greatly since 1952, data of which year were used in this article.

*Per Capita Value Added by Size of Plants
in Industry for Japan, 1951~1955*

Plant Size (number of employees)	(Index Number)				
	1951	1952	1953	1954	1955
10~ 19	32	37	32	34	33
20~ 49	40	45	39	42	40
50~ 99	52	59	50	54	51
100~199	63	71	63	68	63
200~499	78	94	80	86	79
500~999	104	104	101	93	96
1000~	100	100	100	100	100

Calculated from the Census of Manufactures. Index number for plants with 1000 or more employees=100

⁷ For a brief survey, see my article, "The Nature of Small Industries; A Survey of the Economic Interpretation in Japan", *The Annals of the Hitotsubashi Academy*, Vol. 4, No. 1 (Oct. 1953).

Table 9. *Average Per Capita Value Added in Selected Industries*

(Index Number)

Plant Size (employees)	Value Added		Plant Size (employees)	Value Added	
	Japan	U.S.A.		Japan	U.S.A.
Broad woven cotton & spun rayon fabric			Broad woven woolen & worsted fabric		
10~ 19	22	83	10~ 19	48	96
20~ 29	26	100	20~ 29	47	90
30~ 49	31		30~ 49	65	
50~ 99	29	98	50~ 99	71	80
100~199	31	93	100~199	63	84
200~499	47	93	200~499	64	92
500~999	58	89	500~999	85	96
1000~	(100)	(100)	1000~	(100)	(100)
Gray-iron foundries			Textile machinery		
10~ 19	59	79	10~ 19	34	117
20~ 29	71	86	20~ 29	38	119
30~ 49	77		30~ 49	44	
50~ 99	83	100	50~ 99	48	133
100~199	111	105	100~199	49	124
200~499	110	109	200~499	61	145
500~999	(100)	(100)	500~999	85	124
1000~	—	88	1000~	(100)	(100)
Sewing machines			Ball & roller bearing		
10~ 19	33	167	10~ 19	39	96
20~ 29	32	230	20~ 29	43	92
30~ 49	36		30~ 49	46	
50~ 99	43	112	50~ 99	68	100
100~199	48	120	100~199	50	94
200~499	53	<i>x</i>	200~499	150	96
500~999	(100)	(100)	500~999	<i>x</i>	94
1000~	<i>x</i>	<i>x</i>	1000~	(100)	(100)
Electric lamps			Bicycles		
10~ 19	31	58	10~ 19	59	74
20~ 29	34	44	20~ 29	69	91
30~ 49	24		30~ 49	66	
50~ 99	41	54	50~ 99	72	91
100~199	48	<i>x</i>	100~199	80	116
200~499	(100)	(100)	200~499	(100)	(100)
500~999	<i>x</i>	81	500~999	<i>x</i>	111
1000~	<i>x</i>	<i>x</i>	1000~	—	107

Calculated from census of manufacture of Japan (1952) and the United States (1947).
 Figures of the sizes 100~199 and 200~499 are 100~249 and 250~499 for the United States.

Because of its significance, Japanese "small-medium" industry constitutes one of the fundamental problems of Japanese economic structure. Of course, small business is not a "monoploy" of Japanese industry; common features of small business exist in various countries. Recently, small business seems to be attracting more attention than before in the United States as well as in other countries. However, the foregoing data indicate the need for special study to achieve an understanding of small business in Japan. It might be excessive to say that these are unique, but Japanese small business does raise important questions such as the two mentioned above, besides having features which are common to small business in other countries. Hitherto, various aspects of small business have been treated chiefly as subjects for theoretical discussion. Though the data are incomplete, it is hoped that the statistical comparison presented in this article has served to shed some light on the problem of Japanese small business.

A TENDENCY OF ARGUMENTS ON THE PRINCIPLE OF *CAUSA PROXIMA*

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I

The principle of *causa proxima* in marine insurance was a theory which had, since former times, been introduced in England. It was already clearly stated in Arnould's well-known work "On the Law of Marine Insurance and Average",¹ that this was one of the fundamental principles in the law of marine insurance. Regarding the reason why the principle of *causa proxima* had come to be recognized as a fundamental principle in marine insurance, he described, in quoting the dictum of Lord Francis Bacon² who was well-known as a great father of empirical philosophy, that it were infinite for the law to consider the causes of causes, and their impulsion one on the other; therefore it contenteth itself with the immediate causes. Because, in marine insurance, they makes the existence of causality between perils insured against and loss as a major premise, in order to decide whether the insurer is liable to indemnify or not. When an event is of complicated relation involving a number of causes, it would become a very difficult problem to make inquiry into the true cause.

Article 416 of Japanese civil law provides that the claim of compensation for damages aims at getting the losses compensated, which ordinarily take place by dint of non execution of liability, and in this case, the meaning of the losses ordinarily taken place is based on the theory of Adequate Causality or the idea which is generally adopted by German scholars as "Die Theorie von Adäquaten Verursachung". But, when we accept the theory of adequate causality, we must, as Mr. Elster asserted in early times, not only make the authentic problem of probability³ as its standard, but also refer to consideration of ethical factors, responsibility in business, appreciation of human being, appropriateness of scientific method, etc., in order to estimate the causal relations in a proper manner.⁴ If it is so, this theory is neither capable of solving a practical difficulty nor might it make possible for us to solve it.

It is mainly due to the matter mentioned above that the principle of *causa proxima* in marine insurance has formerly been prevalent in England. But in France,

¹ 1st ed. 1848, 2nd ed. 1887.

² Francis Bacon, 1561-1626.

³ "Zutgerechte Wahrscheinlichkeitsfrage".

⁴ Dr. Otto Hagen, *Seeversicherungsrecht*, S. 50.

Germany and other countries as in England, the principle of *causa proxima* has become a key in solving the problems in so far as marine insurance concerned.

Dr. Carl Ritter said in his "Das Recht der Seeversicherung" that the development of the principle of *causa proxima* has generally been accepted as a formula due to the particular features in marine insurance.¹ Otto Hagen stated as well in his work "Die Regel der *causa proxima*" that since former times, the rule of *causa proxima* had been discussed and developed as a legal conception in Germany regarding marine insurance, and recently Mr. Ritter firmly asserted that point in particular. He mentioned, quoting Ritter's words, that this formula was much more crude than those which had hitherto been adopted in usual law, but it was far simpler and the most convenient in order to deal with the phenomena of events in insurance, because, it is always convenient to the economic world that verification will be made in concise and clear manner. Further he said that an argument based on an elaborate philosophy would not necessarily be adopted.²

The law of *causa proxima* has been adopted for a long period of time. When men, when many causes successively occur, by what kind of standard will we be able to divide them into proximate and remote cause? From legal precedents in England we can see that they generally chose one cause which is deemed to be the nearest to the loss simply due to the time order and regarded it as the true cause.

The Hatteras case³ which happened during the American Civil War in 1862 and Pink v. Fleming in 1890 may be good examples. In Germany among many cases which mainly happened during World War I. The *Isomaria* 1917, The *Totmes* 1916, The *Canada* 1916, or The *Sappho* 1916, for example, were all suitable cases to show the judgments making the time order as their standard. In any of these judicial precedents the word "Proxima" was expounded with great severity or stringency and explained it as an essence to pursue the cause of loss in the order of time; as a result, in later times, the word was used with meaning as a more ultimate cause or relation, i.e., *causa ultima non proxima* and it was understood as its true object without looking for the preceding cause. The following examples will show the legal cases⁴ belonging to the same category as above referred to.

- a. Cargo was insured against "war risks only".⁵ After the war broke out, the voyage was for a while made without the occurrence of any event, but the belligerent of one side declaring prohibition of exports and goods-wagon being in short supply, the delivery of the cargoes at final destination was delayed. On account of this the demurrage and cost of transportation were claimed and the Supreme Court held that the insurers were not liable.

¹ Dr. Carl Ritter, Das Recht der Seeversicherung, Hamburg 1921, S. 470.

² Otto Hagen, Seeverversicherungsrecht, Berlin 1908, S. 55.

³ The Hatteras case, *Insured v. Uninsured Insurance Assn.* 1862.

⁴ Dr. Julius von Gierke, Versicherungsrecht unter Ausschuss der Seeverversicherung, 2ter Band, 1947, S. 269.

⁵ nur gegen Kriegseisen.

to indemnity the loss, judging that war risk was deemed to be a remote cause.

- b) Risks of Collision; the risk of collision of insured vessels was increased on account of unseaworthiness. The vessel collided with another by dint of the captain's fault. Though the vessel had already been unseaworthy at the inception of her voyage, the collision would have been prevented if the captain had operated skilfully. The Supreme Court held that in this case the insurer was liable for the event, notwithstanding the unseaworthiness, adopting the *causa proxima* rule.

Furthermore, many judicial cases, enumerated by Otto Hagen in his work "Seeverversicherungsrecht" 1938, to which the principle of *causa proxima* was applied, also were based upon the view that the most proximate cause, from the view point of time, was nearest to the loss namely,—

- 1) The Romulus Case¹⁰

In winter, 1904–1905, during the Russo-Japanese War, the Romulus was insured against "marine risks only"¹¹ according to the General Rules of Marine Insurance, 1867. She set out from Cardiff to Vladivostok laden with 3,500 tons of coal. The vessel sailed east of the Philippines & Japan on the way to Vladivostok, but as she sustained severe damage in the area of Chishima Islands on account of ice blocks she was forced to enter Hakodate Harbour as her port of refuge. Nevertheless, she was, on the way to Hakodate, captured by a Japanese cruiser, "Iwata", and held as captured by reason of carrying contraband goods in time of war. The ship, therefore, intentionally stranded in Aomori Harbour owing to the infiltration of water. The Japanese Prize Court declared that her cargo was confiscated as a prize, and it was sold. While the buyer was conveying the damaged cargo from the stranded place to Hakodate, the ship sank and became a total loss together with the cargo. Though the Supreme Court took also into account the damage sustained by this time before the Japanese intervention, the Court held the damage was caused by a marine risk.

- 2) The Totmes Case¹²

Cargo insured against "marine risks only"¹³ was loaded on board the Totmes, a German vessel, and carried from Antwerp to Chile, but owing to the outbreak of war, she was prohibited to sail from the port by the Belgian Government. The vessel with cargo was detained. The crew was ordered to get out of the vessel and two Belgian inspectors were substituted for them. On September 28, 1914, as a fire broke out in the coal-chamber, the cargo was all unloaded and laid on the pier. By November of the

¹⁰ Rechtsfall RG. I. 18. 12. 1907 Entsch. 67, 251. (Romulus)

¹¹ „Nur für Seegefahr.“

¹² Rechtsfall RG. I. 29. 11. 1916 Entsch. 89, 139; APU. 1917, 34 gegen OLG Hamburg 10, 5. 1916, 106 (Totmes).

¹³ „Nur für Seegefahr“.

same year and during the military occupation of Antwerp, the cargo was stolen. The Supreme Court held that the insurer was liable to indemnify and a plea for war risk as its cause was rejected.

3) The Canadia Case¹⁴

A German cargo, cotton, was insured against "war risks only" for shipment from Galveston to Christiania. A Danish ship, the Canadia, was seized by the British cruiser, "Hilary", on March 11, 1915 and ordered to direct to Kirkwall together with escort. The next day, the captain thought it dangerous to sail on the route between Shetland Islands and Fair Isle because he knew the light at the Fair Isle was put off, so he intended to wait till the next morning, but nevertheless, the commander of the cruiser compelled him to sail as he feared torpedo attack by a German sub-marine. Thereupon, the vessel stranded on a rock at Fair Isle and the total loss of the ship and cargo was sustained. The Supreme Court having the same opinion as the Hamburg High Court, held the loss caused by a marine risk.

4) The Sappho Case¹⁵

During April-May, 1915, S. S. Sappho set out from Calamata to Venice with 1743 bags of gallen, and loaded, on the way, iron materials. They were insured with a clause of transit and processing risks against war risk to Zürich. When war broke out between Austria-Hungary and Italy, the vessel arrived at Venice. There, cargo was discharged and the vessel had to wait for a long time. An order of export prohibition was issued, and a licence from Rome was required. Furthermore, goods-wagons were in very short supply, due to hostilities, so that the carriage was much delayed. For these resulting losses, lighterage and warehouse rent were claimed. The Supreme Court held that the war was a remote cause of the delay of carriage. Thereupon, the Supreme Court held that the insurer of war risks was not liable because the Supreme Court could not consider the war as its true cause.

Concerning marine insurance in France, as in U.K. or Germany, they make it a rule to decide whether the insurer is liable or not, resting on the principle of *causa proxima*.

Ripert,¹⁶ as an instance, said as follows:—

"La jurisprudence française base en générale sa décision sur la *causa proxima*" in France, and he went on to say about the loss:

"La *causa immédiate* du sinistre . . . la *causa matérielle immédiate* de la perte . . . La formule est vague, mais il est impossible d'en donner une plus précise . . . La jurisprudence montre sur ces questions une indécision regrettable."

In other words, according to French law, the insurer is also liable for the loss in marine insurance, basing generally upon the *causa proxima* rule. Even

¹⁴ Rechtsfall RG. 1. 23. 2. 1916 Entsch 89, 142. (Canadia)

¹⁵ Rechtsfall RG. 1. 23. 2. 1918 Entsch. 92, 247 APV 1918, 78. (Sappho)

¹⁶ Ripert, Nr. 2418; Ritter *a. a. O.* S. 497.

though the cause is assumed something direct or material in the loss, there remains yet room of something vague and it is considered impossible to attain sufficient precision.

Since early times in England, the *causa proxima* rule has been recognized as a great maxim as to the relation between loss and risk insured in marine insurance and it is indeed such a famous rule as Chalmers said "No principle of marine insurance is better established than the rule *causa proxima non remota spectatur*."¹⁷ But none the less in early times, there were not few law cases based on a simple formalism, that is to say, laying excessive weight on time order but intentionally neglecting the other major factors.

Among these, the most famous case was the one which involved the liability of an insurer against losses on 6,500 bags of coffee, occasioned by the Confederates who had extinguished the light on Cape Hatteras during the American Civil War. The insurance policy had a clause "warranted free from capture, etc., and from all consequences of hostilities, etc."

The vessel belonging to the Federals at that time went ashore near Cape Hatteras. During the war, the Cape and adjoining country were in possession of the Confederate forces. It happened at one night that the ship met high waves and sank, but 120 bags out of her cargo was safely discharged so that no question arose. At the same time, 1,000 more bags might have been saved but for the interference of some Confederate officers who had come on board and taken possession of the ship. Consequently, the ship with her remaining cargo was totally lost by the action of the waves.

In the case mentioned above, considering that if it had not been for the intervention of enemy, unloading might have been possible, the insurer would have been exempted from the liability of the consequences of hostilities, but on the other hand, the loss of the remaining cargo with the vessel was, no doubt, recognized as loss caused by the perils of the seas from the moment of her stranding. So that the loss was held to be the insurer's liability.¹⁸

In this case, as in the other cases formerly held, "*consequence*" was assumed to have the same meaning as "caused by", and to all similar cases as this, the rule of *proximate cause* has been applied with equal stringency. Thus in case of *Pink v. Fleming*, 1890, Lord Esher applied this rule with the same severity as in the Cape Hatteras case, to the judgment of "damages consequent on collision".¹⁹

¹⁷ Chalmers, *ibid.* 76; Kent 3. 302; Ritter, *a. a.* O. S. 470.

¹⁸ Though the light on Cape Hatteras had been kept burning just until the causality occurred, it had been extinguished by the Confederates during the American Civil War. Thereupon, if the light had been kept burning on, the captain could have taken a proper measure for this case without miscalculation of his sight. But in this action, it was held that the stranding was not considered as a direct consequence of hostilities, furthermore, the court held that the absence of the light and the loss of the ship were too distantly connected to stand in the relation of cause and effect, and to make the other one the consequence of the other.

¹⁹ Lord Chorley, "Arnould on the law of Marine Ins." 14. ed. Vol. II, s. 790, p. 711.

II

As mentioned above, in England, Germany and France, they recognize the proximate or direct relation between the perils insured against and the loss in marine insurance, as an essential element but in former times, regarding the *causa proxima* rule in these countries, it may be proved from a number of law cases in England and Germany as above referred to, that only a mechanical or rather superficial understanding²⁰ was prevalent as to the "*causa proxima*", which laid a great stress upon the most proximate cause in order of time, without picking specially up the more predominant causes, if any.

Though such an understanding of *causa proxima* as to decide whether liabilities come to the insurer or not, according to the cause in time²⁰ is quite simple and clear in practice, and may meet the demand of the business world where they expect prompt decisions, but on the other hand, depending upon such understanding, a number of dominant remote causes might necessarily be neglected. At the same time, it can not be denied that this understanding will conflict with our principle of justice and give us sufficient apprehension to threaten the law consciousness.²¹ Therefore, the understanding of the *causa proxima* rule as in former times, is said to be too crude to obtain a fair result on one hand and to deal simply and promptly with many actions at issue of this sort as mass phenomena responding to the demand of the business world on the other hand. A passage from Julius von Gierke is as follows, "die Causa-proxima-Regel leicht zu einer nicht gerechtfertigten Geringschätzung entfernteres Ursachen führen kann, die unserem Rechtsbewusstsein widerspricht"²². Gierke also criticized that such an understanding would tempt the science of law to fall into a mere vulgar hand-work, to commit a crime by violence mercilessly and to distort the many sidedness of human life.²³

Thereupon, in adopting the *causa proxima* rule as a starting point in marine insurance, it has become necessary that the understanding should always be much more improved by allowing for the other causes.

Accordingly, from these view points, the German law case (a) as above referred to, will quite differently be assumed as that held by the Supreme Court, and war will be looked on as the decisive cause.²⁴ Any cases to which the rule of *causa proxima* were applied in marine and war risk, as quoted by Otto Hagen, happened during World War I. The so-called great judgment on the Sulfmeister²⁵ held by

²⁰ Die zeitlich nächste Ursache, die letzte Ursache. (*Causa ultima*).

²¹ Rechtsbewusstsein.

²² Julius von Gierke, „Versicherungsrecht.“ Stuttgart 1947. S. 270.

²³ „Vielgestaltigkeit des Lebens brutal vergewaltigt.“

²⁴ Gierke stated on this point as follows; "Man mag sie daher in Seeversicherungsrecht zum Ausgangspunkt nehmen, muss sie aber immer einer Korrektur unterwerfen. Dann aber wird man in dem Beispiel aber unter (a) zu einem anderen Ergebnis als das Reichsgericht gegangen und den Krieg als die entscheidende Ursache ansehen".

²⁵ Rechtsfall RG. I. 5. 12. 1936. Entsch. 153. 113 vgl. das Berufungsurteil OLG Hamburg 3. 1. 1936 Hans. RG. Z. 13 1936. 107 (Sulfmeister).

the German Supreme Court on January 1, 1936 about two decades after World War I, gave rise to many controversies in the legal world.

Because, in this case, notwithstanding the vessel was already unseaworthy at the beginning of voyage²⁶ by reason that the collision would have been prevented by the captain's prudent care in operating the vessel, the Supreme Court considering the captain's error in navigation as its true cause in this case, held that the insurer was liable, judging from the *causa proxima* rule reviewing the processes in the German court as mentioned above, it can not be denied that the dominant position which the rule of *causa proxima* occupies in marine insurance is now on a firm basis. Because according to the theory of adequate causality which has hitherto occupied a predominant position in German law, it is inevitable that many useless controversies arise from picking up its true cause in so far as marine insurance is concerned. Evidently, since the judgment of the Sulfmeister case, the constant efforts have, for the first time, given the general effects on judgment.²⁷

From the preceeding fact, we would say that, the *causa proxima* rule in marine insurance in Germany should be understood as essential that loss is directly caused in time. As this criterion is not simple or mechanical as in former times and the ultimate cause in time is a standard in judging only when there is doubt on the occurrence of loss, then, when the court makes a misjudgment, it is, duly possible to appeal to a higher court by proving the more predominant causes.

Accordingly, when many successive causes are in the state of co-operating relation at the happening of a loss, most proximate in time, is *prima facie* deemed to be the true cause of the loss. This is the position in Germany at the present time. This is the meaning of "*causa proxima non remota spectatur*". But in this case, it does not necessarily mean that appropriate allowance for the fact of which cause gives more effect on the happening or scope of the event in question, basing upon the influences held by each cause, is by no means to be excluded.²⁸

²⁶ According to ADS § 55, when the vessel is, unseaworthy at the beginning of a voyage the insurance is *ab initio* null and void and so far this is the same in England.

²⁷ However, in this decision proximate cause was neither dealt as signifying the most effective cause, nor was captain's miscalculation deemed as the predominant cause, that is to say, there were no questions about the causality between these causes, and it can not be denied that the reason for the decision aimed at co-operating the former law cases in marine insurance and seemed as if simply agreeing the former decision. Therefore, according to the law cases as mentioned above, it is said that the direct cause in time, i.e., "*die zeitlich nächste Ursache als causa proxima*" should be taken as the proximate cause. Thereupon, it can be said that from these law cases, formal interpretation for decisions in Germany took the attitude that the rule of *causa proxima* always assumed a direct cause nearest in time. Otto Hagen, *a. a. O. S. 59, Anm. 8.*

²⁸ A passage from Otto Hagen (*ibid. a. a. O. S. 59*) as follows; „Haben bei einem Schaden mehrere Ursachen zusammenwirkt, so ist als massgebende Schadenursache diejenige zu betrachten, die dem Schadenereignis zeitlich am nächsten steht (*causa-proxima-Regel*). Dabei ist eine billige Rücksicht auf das Mass des Einflusses nicht ausgeschlossen dass die eine oder andere Ursache auf den Eintritt des Versicherungsfalles oder auf den Umfang des Schadens ausgeübt hat.“

III

We have hitherto observed the understanding of the *causa proxima* rule in early times, mainly in England, France and Germany. Among them England has, in particular, made a remarkable change in the idea of the *causa proxima* rule since the beginning of this century, particularly since World War I and II. That is to say, war is considered as a criterion to decide which parties are liable for both marine and war risks, depending upon the understanding of the *causa proxima* rule.

The fact that almost all the cases in Germany as above referred to, also were taken up as a legal problem, from the viewpoint of the war, will show the point clearly. The cases on war risks in England, also depend mainly on this point. A particular case which opened quite a new field and took a different way from the conception of former times on the application of the *causa proxima* rule during World War I, was the St. Oswald case.

The St. Oswald,²⁹ engaged in the transportation of the army from Gallipoli to Marseilles sailed without lights and came into collision with another vessel. Since the vessel was engaged in warlike operations as shown above, the damage of collision in this case, was held as a consequence not of marine but of war risk.

We can take another example like this, i.e., the case of the Warilda.³⁰ The Warilda was employed by the Admiralty and engaged in the warlike operation of transporting wounded combatants under T. "99" charter party and was steering fast to her country at night without lights and through the negligence of her master came into collision with a merchant ship, also sailing without lights, and both vessel were damaged. In this case, too, both the House of Lords and the Court of Appeal, held that the collision was a consequence of warlike operations. "The negligence of the master", said Lord Cave, "may have contributed to the loss, but its predominant and effective cause was the operation in which the vessel was engaged, and the liability therefore attaches". "It appears to me", said Lord Shaw "when a ship requisitioned by the naval authorities and actually engaged in a warlike operation came into collision with another vessel under, of course, the exceptional conditions of speed with lights doused and such other warlike precautions, the category of war risk can not be changed into the category of sea risk by reason of the negligence of those engaged in conducting these operations. The conduct may have been faulty but it was a warlike operation though faultily conducted"³¹

Where a warship convoying a number of vessels was broken up by enemy action and in the confusion that followed, one of the vessels came into collision

²⁹ The St. Oswald, *British & Foreign S.S. Co. v. The King* [1917] 2 K. B. 769: [1918] 2 K. B. 879.

³⁰ *Adelaide S.S. Co. v. The King* [The Warilda, 1923 A. C. 292]

³¹ Even after the Warilda case, it now appears clear that negligence, whether of the one ship or the other or of both, does not prevent a collision from being a consequence of a warlike operation. (*Board of Trade v. Hain S.S. Co., Ltd.* (Trevenion) [1929] A. C. 534)

with another without any negligence on the part of either. Shearman, J. held that the loss was the direct and natural result of blowing up of the warship, and therefore proximately caused by a war risk³².

As we can understand from a few cases during World War I, as above referred to, the British rule of *causa proxima* in modern times is no longer of the formula as in former times, which decided the liability of insurer depending simply upon the conception of cause and effect in order of time, but has given rise a new formula which requires the fact as an essential condition that the loss is a direct and natural result.

But under the "Free from Capture and Seizure Clause" (F.C.S Clause) a tendency to distinguish marine from war risk was enforced by a new interpretation since World War I, especially after World War II.

A widely known case during World War I, was the *Ikaria* case, 1918.³³ The vessel was insured against the perils of the seas, but, on this contract, the insurer was warranted free from the consequences of all the hostilities. "Though the vessel was torpedoed by a German submarine about 25 miles from Havre, she was brought into harbour, where she remained for two days taking ground each ebb tide but floating again with the flood. Finally, her bulkheads giving way, she crumpled up and sank and became a total loss". "In an action on the policy, the plaintiff contended the torpedoing could not be regarded as the *causa proxima* of the loss, owing to the intervention of a new cause, viz., grounding and the breaking of her back by the consequent stranding. However, it was held that the train of causation from the acts of hostility to the loss was unbroken and that the defendants were therefore protected by the warranty".³⁴

Thus, when the loss is due to a combination of causes, the question which the proximate cause is—the *causa proxima* rule—is solvable by a mere cause last in time.³⁵ "For, causation is not a chain but a net.... The cause which is truly proximate is that proximate in efficiency. That efficiency may have been preserved although other causes may, meantime, have sprung up which have yet not destroyed it or truly impaired it, and it may culminate in a result of which, it still remains the real efficient cause to which the event can be ascribed."³⁶ Therefore, in *Pink v. Fleming* [1890] 25 Q.B.D. 396, Lord Esher's words "only the cause last in time could be looked to", must be said not to be compatible with the present understanding of the rule.³⁷

As soon as the criterion of the cause last in time was abandoned the problem which was imposed upon the courts became much more difficult. Moreover, "In marine insurance, most results are brought about by a combination of causes"

³² The *Caloline* (1921) 37 T. L. R. 617.

³³ The *Ikaria*, *Leyland Shipping Co. v. Norwich Union Fire Ins. Society* [1917] 1 K. B. 873, [1918] A. C. 350.

³⁴ *Arnould*, *ibid.* s. 822, p. 742.

³⁵ Per Lord Dunedin in *Leyland Shipping Co. v. Norwich Union Fire Ins. Society* (1918) A. C. 350.

³⁶ Lord Shaw in *Leyland Shipping Co. v. Norwich Union Fire Ins. Society* (1917) and (1918)

³⁷ *Arnould*, *ibid.* s. 783, p. 704, f. n. 35.

it has become necessary to make a "search for the cause" and this "involves a solution of the governing explanation in case".³⁸ This choice of the real efficient cause from out of the whole complex of the facts must be made by applying commonsense standards.

As shown above, in England, they are now entirely free from the idea of cause last in time to which they could hitherto hardly bid farewell and in order to search for a true meaning of "*causa proxima*", they are now accustomed to make it clear by adding an adjective, e.g., dominant,³⁹ direct, determining or effective and predominant to the principle of causation. The most distinguished case during World War II, was the *Coxwold*.⁴⁰ The vessel was convoyed from Greenock to Narvik in Norway and stranded on her voyage. She loaded petrol as goods to be used by the British Force in Norway. Accordingly, this voyage was a warlike operation but her stranding must have clearly been an event occasioned by a marine risk. Therefore, the question in this case was whether this particular stranding might be deemed as the consequence of a warlike operation or not, allowing for the fact that the stranding occurred due to a maritime peril. The stranding had happened after about half an hour when the vessel turned to at right angles, aiming at avoiding an enemy by the order of naval authorities. The vessel stranded finally on rocks owing to an unforeseen current and there was no negligence to be found. Regarding the above case, the House of Lords overruled the decision of the Court of Appeal, and held that the loss was proximately caused by the warlike operation, not by the current. The decision of the *Coxwold* case gave rise to a great surprise in the market, for stranding was hitherto considered as a maritime peril. Thereupon, the insurer promptly undertook the revision of F.C.S clause (Free from Capture and Seizure Clause) so as to obtain a clearer border line between marine and war risks.

After consultation between the Ministry of War Transport and the parties interested, they decided to execute a newly revised clause, the contents of which were as follows:

"Collision, contact with any fixed or floating object (other than a mine or torpedo), stranding, heavy weather or fire unless caused directly (and independently of the nature of voyage or service which the vessel concerned, or in the case of a collision any other vessel involved therein is performing) by a hostile act by or against a belligerent power; and for the purpose of this warranty "power" includes any authority maintaining naval, military or air forces in association with a power".

³⁸ Per Lord Wright's opinion in the *Coxwold* (1942) A. C. 691., afterwards he said in *Athel Line Ltd. v. Liverpool and London War Risks Ins. Assn. Ltd.*, (1946) 1. K. B. 117 that this legal theory of causation has in course of years had a remarkable history but it appears to have come to rest at the moment; laying down it that this type of question of contribution is really a matter for the commonsense and intelligence of the ordinary man, and at the same time that this criterion is not at all easy to apply

a) See, *The Prima Ocean S. S. Co., Ltd. v. Liverpool and London War Risks Assn. Ltd.*, (1948) A. C. 243.

³⁹ Per Dunedin in *Leyland Shipping Co. v. Norwhich Union Fire Ins. Society* (1918), and Lord Porter in the *Coxwold*. Arnould, *ibid*, s. 283. p. 705.

⁴⁰ *The Coxwold, Yorkshire Dale S. S. Co., Ltd. v. Ministry of Transport* (1942) A. C. 691.

As above referred to, in the case of the *Coxwold*, though the House of Lords held that the stranding was caused directly by a hostile act, the greater parts of dispute were concentrated on the problem how the *causa proxima* rule should be applied. Any of the courts in England hitherto attached an essential importance to the voyage and service on which the vessel was engaged.

By accepting, now, the revised clause which disregarded this point, it may perhaps be that, on its fact, the *Coxwold* of today would now be decided differently. Perhaps the same may be said of the well known case of the *Ikaria* in 1918.⁴¹ (*Leyland Shipping Co., Ltd. v. Norwich Union Fire Ins. Society*).

We have so far observed the fresh understanding of the *causa proxima* rule in recent times, by a few cases in England, where they are proud of being the mother country of the rule in marine insurance which came out from so primitive a stage as searched only for a simple time order, and has gradually developed to the present stage where an essential importance is attached to a dominant cause, i.e., it may mean at the same time nothing but a triumph by our consciousness of law.

Having started from taking a dictum of Lord Bacon as the causality in marine insurance, England has obtained a great benefit on her decision and now it may be said that she has entirely left out of the old husk and accomplished the new equipment.

Gierke's criticism, as above referred to, that the *causa proxima* rule as understood formerly in Germany has, not only given an ill effect of neglecting the dominant causes but also invited a result against our consciousness of law is truly worthy of appreciation.

IV

So far in England, the new understanding has been established through her judicial cases since World War I and II, and particularly undertaken to revive the *causa proxima* rule which has hitherto been depressed. At the same time, as a criticism on the *causa proxima* rule has become gradually to be vigorous in Germany and France, we can no longer come across with so simple a theory of cause proximate or direct in time as formerly.

Ritter asserted in his commentary remark on the General Rules of German Marine Insurance as follows: "When a number of causes exist in competing with each other and any one of which has an inevitable relation to a loss, that cause should be taken as the true cause of loss", and his remark is in line with those which are commonly approved by the decision in England. It has been stated

⁴¹ In the United States, as in England, the *causa proxima* is the prevailing rule and generally speaking, it may be said that the essentials of judicial case of the former country keep up with that of the latter.

The judicial cases in recent times, *Queen Ins. Co. of America v. Glove and Rutgers Fire Ins. Co.* (1929), *Link v. General Ins. Co. of America*, etc., will be taken for examples.

in the preceding section that Otto Hagen also arrived at the same conclusion.⁴²

The *causa proxima* rule has, since former times, been recognized as a great maxim in the British law of marine insurance, and it is written in the preceding section that this principle is legalized and prescribed in detail on §55 in the Marine Insurance Act, 1906. Notwithstanding, the problem of what *causa proxima* means, was an extremely difficult question and so the British court often fell into confusion. Thereupon, this principle, as Ritter stated, was almost to lose the reason for its own existence, and it has often been asserted to be abandoned. Accordingly, it is natural that different theories substituting for it have appeared but at last a matter came out such as, any one of these theories has both merit and demerit, and there was no room for adequate application. Among them, there are the two most outstanding formulas, the one is the *theory of adequate causality* and the other, the *theory of most predominant cause*.⁴³

It was made clear by German scholars, particularly by Ritter, that these two theories contain many weak-points in themselves as a standard to decide causation in marine insurance.⁴⁴

Thus, seeing the process that the *causa proxima* rule has changed its feature, from the cause last in time formerly to dominant causation recently, it can not be denied that the rule has entirely lost its own feature as in former times and has reduced it to one like the theory of adequate causality, which stands in contrast with the principle of *causa proxima*. It is natural that Otto Hagen criticized the Ikaria case in England and stated in his treatise as follows:

"But when such a matter comes out, this principle fairly approaches German inherited conception and the difference between them can not be recognized."⁴⁵ We can say that it was rather a misunderstanding of Bacon's philosophy to grasp the *causa proxima* as the last cause "letzte Ursache" or the nearest cause in time "die zeitlich nächsten Ursache". Since then, the *causa proxima* rule seems to have been able to reach, at last, its own destination through a number of experiences of zigzag trials.

We may criticize that Otto Hagen was right, on facing the decision of the Ikaria case, when he said, "It never means that the British court made an overall change on the *causa proxima* rule, but on the contrary, it makes clear the decisions hitherto achieved in England, we must, by no means, misunderstand as to this fact".⁴⁶

⁴² See, Otto Hagen, Seeversicherungrecht. S. 59.

⁴³ „Theorie von der adäquaten Verursachung und Theorie der Überwiegende Schadenursache.“

⁴⁴ The features of these two were described in detail in "Marine Insurance" written by Dr. Hiroshi Suguro, so I do not think it necessary to state them more in detail and would refer you to read.

⁴⁵ "Hiermit verschmelzt sich diese Regel aber so nahe mit der landläufigen deutschen Auffassung dass sie sich praktischen Unterschied mehr erkennen lässt" (Otto Hagen, a. a. O. S. 56.)

⁴⁶ The sinking of the Ikaria by torpedo was held to the effect that war risk insurer was liable, not because the sinking was the last cause but because it was an inevitable consequence by torpedoing.

So far, better or worse, the principle of *causa proxima* has made great strides since the revision on the General Rule of Marine Insurance, and consequently, these many theories act as powerful reinforcements to the *causa proxima* rule and the principle of proximate cause which had almost once lost its credit, seems to have left its old husk and arrived at the proper destination as a neo-principle, so to say, of *causa proxima*.⁴⁷

References:

1. Dr. Carl Ritter, Das Recht der Seeversicherung.
Ein Kommentar zu den Allgemeinen Deutschen Seeversicherungs-Bedingungen.
Lieferung. 2. S. 469-497., 9. Kausalzusammenhang.
Hamburg 1922.
2. Dr. Otto Hagen, Seeversicherungsrecht. S. 54-59.
17. Ursächlicher Zusammenhang, insbesondere Die Causa-proxima-Regel.
Berlin 1938.
3. Dr. Julius von Gierke, Versicherungsrecht unter Ausschluss der Sozialversicherung. Zweiter Band S. 269 XVI. Eintritt des Versicherungsfalls. Stuttgart 1947.
4. Dr. Gustav Sieveking, Das Deutsche Seeversicherungsrecht. S. 182-189. Berlin 1912.
5. Lord Chorley of Kendal, Arnould on the Law of Marine Insurance and Average. 14th ed. s. 783. 790. 820. 822. 905. 905a.-905h, etc., London, 1954.
6. Dr. Alfred Sieveking, General Rules of Marine Insurance. 1919. 2nd ed. revised edition. Hamburg, 1954.
7. Yoshisaku Kato, A Lecture on Marine Insurance. 1st ed. Ganshodo, Tokyo, 1949.
8. Hiroshi Suguro, Marine Insurance. 1st ed. Shunjusha, Tokyo, 1950. revised edition. Tokyo, 1955.
9. Yu Imamura, A Theory of Marine Risks. 1st ed. Ganshodo, Tokyo, 1952.

"Man darf sich auf nicht darüber täuschen dass Ikaria Urteil keineswegs eine volle Veränderung der englischen Rechtssprechung bedeutet oder die heute dort zur Herrschaft gelangte Rechtsauffassung darstellt". (Otto Hagen, *a. a. O.* S. 56.) Moreover, it is justly said that the British judicial case such as *Montaya v. London Ass. Co.*, 1851 was a fair decision from this view point.

⁴⁷ It is said in the *Coxwold* case as follows: "though the theory of causation has a history for a long time, it appears to have come to rest at the moment—".

A RECONSIDERATION ON THE CONCEPT OF UTILITY

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I. *Introduction*

The utility theory has been developed to explain the fundamental principles of price theory and welfare economics. Yet it cannot be said that the concept of utility itself has been clearly defined. Although the measurability of utility has been often questioned for more than 60 years, we have not succeeded in settling the problem.

Irving Fisher is the first to attempt in defining utility with logical exactitude. He defined utility as a quantity to express the order of choice of commodities. He proved that if the utility of a commodity is independent of some other commodity, the marginal utility of the former can be measured with the increment of the latter. Usually, however, utility being the function of many commodities, he gave a more general definition of utility that it expressed only the order of choice, not necessarily the measure of desirability. Pareto, Frisch, Marshall and Hicks followed Fisher and they enlarged and refined his idea. These authors, however, greatly differed in their effort to go beyond Fisher. Pareto and Hicks adopted his general definition and gave up the intention to measure utility. Hicks in particular tried to reform, in the light of ordinal utility, the traditional ideas such as related commodities or consumer's surplus. The adoption by Marshall and Frisch of his first definition led to the attempt to define cardinal utility. Frisch went so far as to measure utility using statistical data.

Recently, Neumann and Morgenstern developed a new method to measure utility. The aim of these writers was to apply it to the game theory. Their method has been highly appreciated by some mathematical economists and several papers have been published following their method.

The purpose of this paper is to reexamine the definitions of cardinal utility by Fisher, Marshall and Neumann-Morgenstern and to prove that the only successful definition hitherto was the one given by Marshall.

II. *Attachment to Cardinal Utility*

Hicks succeeded in reforming the price theory without using the cardinal utility. Yet there is a strong inclination to establish the concept of utility as

a measurable quantity. We can enumerate several reasons for this.

First of all, the popular theorem of decreasing marginal utility can not exist without cardinal utility. As we will describe later, the concept of quantitative utility depends upon the comparison or choice between increments of commodities belonging to different positions of commodity space. The above theorem compares the successive increments which belong to the different points, so that we may say the theorem depends upon the measurement of utility. Hicks proposed to use the theorem of decreasing marginal rate of substitution in place of the former theorem. No one can deny the superiority of his theory from the logical standpoint, but his theory has such a big structure as to make us feel hard to connect his theory to our direct experience through the narrow channel of the above theorem.

Next we have the application of cardinal utility in the definitions of related goods, complimentary, alternative and independent. Of course we have Hicks' definitions without using cardinal utility. His definitions have their own merits which are shown in his successful applications in "Value and Capital". Yet they are not without weakness. For his definitions depend upon the effect of demand for the other commodity caused by the price change of one commodity, they can not be used as basic explanations of the relative price movement of related goods. He seems to try to hang a boot on its strap.

Another use of cardinal utility is the definition of consumers' surplus, which has been the fundamental tool in the welfare economics. Consumer's surplus is the integration of the differences between marginal utilities and marginal costs. Therefore, it cannot be defined without quantitative utility. Hicks seem to have succeeded in defining consumers' surplus without using cardinal utility. He used indifference curves between money and goods, and defined consumers' surplus as the difference between the amount of money on the indifference curve and that of money actually paid. Because the former amount means the maximum amount of money which a consumer will willingly pay for the acquisition of a commodity, we can see that there is little difference between his definition and that of Marshall who defined utility in cardinal terms.

Another use of cardinal utility is in the definition of marginal utility of money (or of income) which should have important applications in the welfare economics. For instance we can compare the living standard using the flexibility of marginal utility of money. Frisch tried to fix the justifiable rate of income tax or to derive the supply function of labor by using the same tool.

These are the main reasons among many others, why many economists still cling to the quantitative utility.

III. *The Assumptions of Fisher, Frisch and Marshall*

Fisher describes that the sense in which utility is a quantity is determined by the following definitions.¹

(1) For a given individual at a given time, the utility of A units of one commodity (a) is equal to the utility of B units of another (b), if the individual has no desire for the one to the exclusion of the other.

(2) For a given individual, at a given time, the utility of A units of (a) exceeds the utility of B units of (b) if the individual prefers A to the exclusion of B rather than for B to the exclusion of A . In the same case the utility of B is said to be less than that of A .

(3) The utility of any one commodity depends on the quantity of that commodity, but is independent of the quantities of other commodities.

From these definitions or assumptions he proves that the ratio of two infinitesimal utilities is measured by the ratio of two infinitesimal increments of the same commodity respectively equal in utility to the two utilities whose ratio is required, provided that these increments are on the margin of equal finite quantities.

As to his definitions (1) and (2) we can not find any objections. As to his definition (3), however, we might ask how we can confirm that commodity (a) is independent of (b) without appealing to measurable utility.

Suppose we have x of (a) and y of (b). Let the utility of a unit increment of x be denoted as follows:

$$u = u_x(x, y)$$

If we change y to y' and still we have the same utility of the above increment

$$u' = u_x(x, y')$$

then we can say (a) is independent of (b). But how can we know that u is equal to u' ? We could not know by act of choice, because (x, y) and (x, y') express the different points of the space of (a) and (b) and we are unable to make choice at the same time. Thus the definition (3) must be considered as an assumption because it can not generally confirmed by direct experience.

Frisch has enlarged the definition of Fisher². He clarified the necessary axioms for Fisher's definition (3), but he expressed no doubt for their validity. His assumptions were grouped into two categories of axioms. The first group of axioms was developed as follows:

I. Axioms relative to a given position.

(a) Axiom of choice.

When an individual finds himself on a point \mathbf{x} and is asked to choose between two displacements \mathbf{p} and \mathbf{q} , we assume that his choice is always determined and

¹ I. Fisher: *Mathematical Investigations into the Theory of Value and Prices*. 1892. p. 12

² R. Frisch: *Sur un problème d'économie pure*. 1926. pp. 3-5.

belongs to one of the three following cases.

- (1) He prefers p to q .
- (2) He prefers q to p .
- (3) The choice between p and q is not related.

For the sake of simplicity we use the following notations to express these three cases.

$$(xp) \geq (xq)$$

This axiom I is just equivalent to Fisher's definitions (1) and (2).

Frisch pointed out other axioms which were not explicitly expressed but implicitly used in Fisher's argument.

(b) Axiom of coordination

If $(xp) > (xq)$
 and $(xq) > (xr)$
 The choice will be $(xp) > (xr)$

And the same is true for the sign $=$, $<$ and non $>$.

(c) Axiom of addition

If $(xp) > (xq)$
 and $(xr) > (xs)$
 Then we have

$$(x, p+r) > (x, q+s)$$

Now we have axiom II.

II. Axioms relative to different positions.

(a) Axiom of choice

When an individual finds himself at two different occasions in the positions x and y respectively, and has to choose between a displacement p in the position x and a displacement q in the position y , we assume that his choice is always well determined. That is, we have always one of the following three cases.

$$(xp) \geq (yq)$$

(b) Axiom of coordination

If $(xp) > (yq)$
 and $(yq) > (zr)$
 We have $(xp) > (zr)$
 and the same for the other signs.

(c) Axiom of addition

If $(xp) > (yq)$
 and $(xr) > (ys)$
 we have

$$(x, p+r) > (y, q+s)$$

and the same for the other signs.

We have shown that Fisher's definition of independent utility depends upon the choice between the increments belonging to the different points of commodity space. Therefore we can say that the axiom II of Frisch is an enlargement or

a refinement of Fisher's definition (3).

Frisch has developed a method of measuring marginal utility in the same paper. He used sugar as an independent commodity which meant that he applied his axiom II in a special form.³

We have another method of measuring marginal utility, i.e. the one proposed by Marshall.⁴ His method is to measure marginal utility in terms of the price which an individual is just willing to pay for any one unit of a commodity rather than go without that unit altogether. In other words, the utility of increment of a commodity is measured by increment of money just equivalent to it.

This definition is very well adapted to our common sense understanding of utility and has been widely accepted by many economists except for few specialists who are interested in basic theory. Those criticisms were directed towards the logical vagueness or inconsistency of his definition.

Marshall himself admitted that in his definition the basic assumption is that the marginal utility of money itself must be constant. In this respect his definition was criticized by some authors such as Pareto and Hicks. I am of the opinion that his assumption may be considered as another expression of independency of money utility. Compared with that of Fisher and Frisch, however, his definition has somewhat different aspect.

I wish to examine Marshall's definition further in detail in order to find that whether we can accept those criticisms or not.

IV. *An Examination of the Marshallian Definition*

If the marginal utility of money is independent of the quantity of the commodity the utility of which is to be measured, we can accept Marshall's definition as a special case of Fisher's or Frisch's definition. The question, therefore, is to be raised as to the independency of money utility. The criticism by Pareto or Hicks did not concern itself with this point directly, but with the question of constancy of marginal utility of money. Certainly this is another problem if we succeed to establish the independency of money utility as we shall discuss later. But if this is not the case, the two problems are interrelated to each other and sometimes confused in discussion.

Now according to Pareto⁵, let the quantities of commodities to be purchased by an individual be

x, y, z, \dots

x being the quantity of hoarded money. Let the prices of the commodities be

$1, p_1, p_2, \dots$

By the condition of maximum index of utility, we have

³ R. Frisch, *ibid.* p. 24, p. 30

⁴ A. Marshall, *Principles of Economics*. 8th ed. 1938. pp. 93-94

⁵ V. Pareto, *Manuel d'économie politique*. trad. par A. Bonnet. 2me ed. 1927. pp. 579-589

$$\varphi_x = \frac{1}{p_y} \varphi_y = \frac{1}{p_z} \varphi_z = \dots \quad (1)$$

in which φ is an index of utility which is an arbitrary function subject to a certain condition. φ_x is a derivative of φ in relation to x , φ_y , φ_z being defined similarly. Let the marginal utility index of money be denoted with m . Then we have

$$\varphi_x = m, \quad \varphi_y = p_y m, \quad \varphi_z = p_z m, \dots \quad (2)$$

When we express the quantities of goods possessed by him before exchange with x_0, y_0, z_0, \dots , and the quantities after exchange with x, y, z, \dots , we always have

$$x - x_0 + p_y(y - y_0) + p_z(z - z_0) + \dots = 0 \quad (3)$$

From (2) and (3) we can deduce

$$\frac{\partial m}{\partial p_y} = - \frac{(y - y_0)R + m M_{2,1}}{M} \quad (4)$$

where $M = - \begin{vmatrix} 0 & 1 & p_y & p_z & \dots \\ 1 & \varphi_{xx} & \varphi_{xy} & \varphi_{xz} & \dots \\ p_y & \varphi_{yx} & \varphi_{yy} & \varphi_{yz} & \dots \\ p_z & \varphi_{zx} & \varphi_{zy} & \varphi_{zz} & \dots \\ \dots & \dots & \dots & \dots & \dots \end{vmatrix}$

and $M_{2,1}$ is a cofactor of M .

In the simplest case where every commodity is independent of each other, we have

$$\varphi_{xy} = 0, \quad \varphi_{xz} = 0, \dots$$

In this case the equation (4) can be reduced as follows:

$$\frac{\partial m}{\partial p_y} = - \frac{y - y_0 + \frac{\varphi_y}{\varphi_{yy}}}{T} \quad (5)$$

where $T = \frac{1}{\varphi_{xx}} + \frac{p_y^2}{\varphi_{yy}} + \frac{p_z^2}{\varphi_{zz}} + \dots$

Even in this case we cannot say that the marginal utility index of money is constant.

Pareto pointed out that according to Marshall $\frac{\partial m}{\partial p_y}$ should be zero. This was the proof for his assertion that Marshall's definition could not logically be held.

In my opinion, the presumption of Pareto's criticism is that marginal utility should be regarded as a marginal rate of substitution of a commodity with money, holding money income constant, or to express it more correctly, along the income and expenditure equation (3). In equations (2), the right hands denote the marginal rate of substitution of commodity with money.

This is of course one way of defining marginal utility along the Marshallian line. But we can also define marginal utility as a marginal rate of substitution of a commodity for money, holding the total utility constant. This definition is essentially the same as that given by Hicks as his interpretation of the Marshallian concept of utility. He argues, however, that this definition will not hold

if the marginal utility of money varies with the quantity purchased of the commodity.

According to Hicks,⁶ Marshall's assumption on the constancy of marginal utility of money is a simplification in which he neglects the income effect caused by the change of price. This simplification is valid when income effect is small, for instance, when the commodity concerned is a relatively unimportant part of the consumer's budget. In this case we may only consider the substitution effect, i.e. the variation along the same indifference curve. This is the reason for the statement above that Hick's interpretation of the Marshallian utility depends upon the constancy of the total utility. Hicks, however, affirms that income effect can not be neglected and so Marshallian utility should not be used in the general case.

Pareto and Hicks have enough reasons to blame Marshall if their interpretation of the Marshallian utility should be right. I believe, however, there is another way of defining marginal utility for measurement purpose. When we compare an increment of a commodity or a group of commodities with an increment of money, we need not necessarily regard them as substitutes. We need not buy a commodity to evaluate it. We need only imagine a situation where we have an increase in our consumption or stock of commodities, and a situation where we have a greater amount of monetary income. Then we compare the two situations and make a choice between them. This is a natural behavior, and the result of such a choice can be expressed objectively. This, I think, is the method which Marshall had in mind when he defined marginal utility in terms of money.

It may be said that this method is nothing but a kind of substitution. But there is a fundamental difference between this kind of substitution and the kind in the cases of Pareto and Hicks described above. In those two cases the two increments compared can be summed (ignoring sign), and, if they are summed, the total money income or total utility, originally considered as being constant, will be some what changed. In this third case, however, the sum of the utilities of the commodity and money increments is meaningless because they belong to different positions of commodity space which cannot be realized simultaneously. When we consider the increase of money income we hold the prices of commodities constant, while when we consider the commodity increment we evaluate it in terms of a price which may vary. Suppose one is in an equilibrium position and consumes n commodities whose quantities are expressed as (x_1, x_2, \dots, x_n) . If M represents his money income, then the utility of dx_1 , an increment of x_1 , can be measured by dM so that the following relation is satisfied:

$$F(x_1 + dx_1, x_2, \dots, x_n) = U(M + dM) \quad (6)$$

Here F and U denote the indices of utility of commodities and money respectively. F and U are assumed to be continuous and differentiable. Now $U(M)$ can be determined through the following three equations.

$$M = p_1 x_1 + p_2 x_2 + \dots + p_n x_n \quad (7)$$

⁶ J Hicks, *Value and Capital*. 1939. pp. 20-32

$$U = F(x_1, x_2, \dots, x_n) \quad (8)$$

$$\frac{F_1}{p_1} = \frac{F_2}{p_2} = \dots = \frac{F_n}{p_n} \quad (9)$$

These are well-known equilibrium equations and determine U as a function of M , equations (9) being essentially the same as the equations (2). This is generally recognized as a definition of money utility.

Now when we consider $U(M + dM)$ we regard p_1 as constant, while when we evaluate dx_1 , we evaluate it as $p_1' = \frac{dM}{dx_1}$ which might be different from p_1 . So we can say the utility index of dx_1 is independent of the utility index of dM . From this point of view, I wish to affirm that the Marshallian method of utility measurement belongs to the case, which Fisher described, in which utility could be measured with the increments of independent commodities.

It seems that we have succeeded in evaluating marginal utility in terms of money. But still we have to consider the question whether a unit of money expresses a unit of utility. We assumed the continuity and differentiability of the index function. This, I think, is justifiable when we consider relatively small increments of commodities. From this assumption it follows that the marginal utility index of money can be considered almost constant when dM is small. But it does not hold in those cases involving so large a degree of variation that the total utility can not be deduced by integrating marginal utility. Or from this proposition we can not say anything about the second derivative of total utility, so that the law of decreasing marginal utility should not be deduced from our definition.

We know from our experience that, in general, marginal utility in terms of money decreases when the quantity of a commodity purchased increases. Now we can see that this fact places some restrictions on the form of utility index function. Let one of the utility index function of commodities (x_1, x_2, \dots, x_n) for an individual be denoted with $\varphi(x_1, x_2, \dots, x_n)$, then any index function of the same commodities can be expressed as

$$I = F\{\varphi(x_1, x_2, \dots, x_n)\}.$$

F is an arbitrary continuous function subject to the following condition

$$F' > 0.$$

The marginal utility index of commodity x_i is

$$I_i = F' \varphi_i(x_1, x_2, \dots, x_n)$$

and the marginal utility index of money being

$$\mu = \frac{1}{p_i} F' \varphi_i(x_1, x_2, \dots, x_n)$$

If we measure I_i with μ as a unit, we can easily see that

$$I_i = \mu p_i$$

which shows that marginal utility in terms of money is p_i as Marshall described.

Now when we evaluate one more unit of the commodity in Marshallian way,

we measure $I_1' = F' \varphi_1(\bar{x}_1, \dots, x_n)$ not by $\mu = \frac{1}{p_1} F' \varphi_1(x_1, x_2, \dots, x_n)$ but by $\mu' = \frac{1}{p_1} F' \varphi_1(x_1', x_2', \dots, x_n')$ where \bar{x}_1 denotes $x_1 + \Delta x_1$, Δx_1 being a unit of x_1 , and $(x_1', x_2', \dots, x_n')$ denote the quantities purchased by $M + \Delta M$ ($\Delta M = p_1 \Delta x_1$). The decreasing marginal utility in terms of money shows that

$$I_1 < \mu' p_1.$$

This is quite natural because when we evaluate money utility we assume the most favorable distribution of expense among various commodities, while when we evaluate one special commodity, we suppose the increase of only one commodity, which is not necessarily the best combination for the expense. From the above consideration we can conclude that the function $F' \varphi_i(x_1, \dots, x_i, \dots, x_n)$ must be a decreasing function of x_i .

Now F is an arbitrary function of x_1 under the restriction $F' > 0$, we can put $F' = \text{constant} > 0$ as a possible case. In this case φ_i must be decreasing along the x_i ax. Any utility index φ should be subject to this condition. Though F is an arbitrary function, the arbitrariness is restricted because it has to conserve the proposition that

$$\frac{\partial \{F' \varphi_i\}}{\partial x_i} < 0.$$

The constancy of the marginal utility of money can not be maintained in our interpretation of the Marshallian utility, but we can easily see that the variation of μ is smaller than I_i , so that his definition can be applied to a small increment of commodity, but we should say that it must not be used in a case involving so large a degree of variation that the total utility can not be deduced by integrating marginal utility.

V. An Examination of Neumann-Morgenstern's definition

Neumann and Morgenstern proposed to measure utility on a hypothesis in which they assumed that we could compare and make choice between a group of events of which their respective probabilities were known and another event or a similar group of events.

Let us denote the utility index of an event with u . We can use another index by applying monotonic transformation to u , which we are going to express as

$$\rho = V(u).$$

If we denote another utility which is different and alternative to u with v , the transformation V must satisfy the following relations of correspondence.

(i) If $u > v$, then $V(u) > V(v)$

(ii) When we combine the two utilities u, v and apply transformation V , the result is the same whether we apply transformation before they are combined

or after. In algebraic expression it is

$$V\{\alpha u + (1-\alpha)v\} = \alpha V(u) + (1-\alpha)V(v)$$

where α is the probability for the utility u .

From these two hypotheses they deduce the measurability of utility. Suppose we have two transformation formulae V and V' which satisfy the above two conditions. We shall express them as

$$\rho = V(u) \quad \rho' = V'(u) \quad (10)$$

Let the relation of ρ and ρ' be denoted as

$$\rho' = \phi(\rho) \quad (11)$$

and then examine the characteristics of the function ϕ .

From the equations (10) (11) we can put

$$\phi(\rho) = V'(u)$$

We also have the similar equation for v .

$$\phi(\sigma) = V'(v)$$

in which σ denotes $V(v)$.

Now we can easily see that ϕ is also a monotonic transformation. Therefore the assumed conditions (i) (ii) must also hold for ϕ . We have then

$$(i)' \quad \text{If } \rho > \sigma, \quad \text{then } \phi(\rho) > \phi(\sigma)$$

$$(ii)' \quad \phi\{\alpha\rho + (1-\alpha)\sigma\} = \alpha\phi(\rho) + (1-\alpha)\phi(\sigma)$$

The last equation shows that ϕ is a linear function, so that we can put

$$\phi(\rho) = w_0\rho + w_1$$

where w_0 and w_1 are constant. From this we can deduce that any utility index function is subject to linear transformation with each other. This means that utility can be measured when we fix the unit of utility and the zero point.

The above reasoning following Neumann and Morgenstern appears perfect. But if we examine it in detail, we find that another basic assumption is made tacitly. That is the proposition that a utility of combined events is equal to the mathematical expectation of the separate utilities of the events. This we can find in the hypothesis (ii). For if we should consider the mathematical expectation $\alpha u + (1-\alpha)v$ as the utility for the combined events, we might be able to apply the transformation V to it and put it equal to the mathematical expectation of the separate transformed utilities. But if the mathematical expectation does not express the utility of the events, we have no reason to prove the validity of the transformation. In this case we need another assumption which implies the linearity of the transformation V . Hence, their method of utility measurement fails to sustain its own perfection. Of course, in some cases, their method might be used as an approximation which is also unavoidable in Marshall's method.

CHARACTERISTICS OF MANAGEMENT IN JAPANESE ENTERPRISE

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I. *Prewar Characteristics*

(1) In European countries, industrial development based on the adoption of modern productive processes and techniques has been accompanied by social changes of revolutionary nature which paved the way for the emergence of modern society, but industrialization in Japan took a different course. That is to say, the industrialization was carried out without sufficient elimination of feudalistic elements, or under the traditional social structure.

The Meiji Restoration, no doubt, brought about drastic political and social changes, but even so it failed to dissolve completely the pre-modern social structure and therefore, was not accompanied by social confusion. However, the restoration created politico-social conditions for industrialization by developing a form of modern state—although it was rather an absolutistic one. The industrialization took a peculiar pattern of development as it was combined with the pre-modern elements remaining at the root of Japan's social structure.

In other words, the industrialization in Japan was effected under the traditional social system, in parallel with the system and in combination with it. By this way, the industrialization made such a smooth progress that was unparalleled in world history, and was carried out, as is a well-known fact, at an extremely rapid pace.

The successful industrialization in Japan may be attributed to the modern productive techniques, to the paternalistic cooperationism which characterizes the pre-modern social structure and to the nationalistic enthusiasm to catch up with the advanced nations.

(2) The fact that modern industry developed under the traditional system means that the pre-modern social institution and concepts founded in the traditional agriculture was carried over and applied to industrial management and labor.

Far from being destroyed, as it was in Europe, Japanese paternalism in the old family system was rather harmonized with modern techniques and was powerfully utilized in developing them.

Thus paternalism has constituted the social characteristics of Japanese management and gave rise to the idea that the company is a family. Under this concept, which underlies Japanese management and labor, the enterprise represents a

family; the leader of the enterprise, the head of the family; and the employees, the members of the family.

One of the two outstanding features of paternalism is cooperationism and the other is authoritarianism. The former is of a benevolent nature. The authoritarianism here is based on the principle of maintaining order by absolute authority, and takes the form of despotism whenever the benevolent cooperationism fails to work. The leader of an enterprise dealt with his employees with authority comparable to that of the head of a family or clan. As the head of the family, the manager bore heavy responsibilities for the laborers. He planned various welfare institutions for his workers and formed his management policies with a view toward executing these plans. In managing the enterprise, he met his employees face to face every day to maintain close personal touch with them, and also he cultivated mutual understanding through the loyal assistant staff. The employees, on the other hand, faithfully obeyed the manager, suppressing their ego and putting their fate in the hands of the manager.

Although this family system was of pre-modern nature, it was instrumental in establishing cooperative relations between the manager and the employees and served as one of the foundations for smooth progress of Japanese industrialization.

However, when authoritarianism, the other aspect of paternalism, took the form of despotism, the inconsistencies of industrialization by paternalism was bound to come to the fore.

(3) The Meiji Restoration resulted in the formation of a modern state of Japan. This process was made possible by the absolutistic state control. The nationalism became the guiding spirit of the people in general and powerfully controlled the behavior of management and labor in enterprise. Enterprise was based on the capitalistic system and had as its direct objective the pursuit of profits on capital, but this was so as far as it coincided with the object of the state. Thus, the object of the state became an impelling motive of industrialization. The managers worked not only for his own profit but also for the object of the state to overtake the advanced nations in industrialization. This lessened the laborer's resistance to authoritarianism.

This intense nationalism constituted a motive-factor in the extremely rapid development of industrialization. Although competition also constituted a factor in promoting industrialization in Japan as in other countries, the Japanese industrial revolution failed to bring about a complete free economy. Therefore, the object of the state constituted a stronger factor than free competition did in promoting industrialization. The nationalism caused the government to take positive protective policies of industrialization in order to achieve the object of the state. And the government fostered the *Zaibatsu* in the hope of concentrating capital by it to be able to accelerate large scale industrialization. Although the modernization of production processes of consumers goods, including the spinning industry, progressed independently and gave an impetus to industrial

revolution, the modernization of basic and heavy industries developed under Government protection and concentration of Zaibatsu capital. There were scattered over the country numerous smaller enterprises but at the same time an extremely high degree of concentration of enterprises took place under the Zaibatsu capitalistic system. Thus, the Japanese enterprise was characterized by the two contrasting features of centralization and decentralization. It is noteworthy that the centralized capital of the Zaibatsu on the other hand ingeniously mobilized scattered smaller enterprises around itself.

This concentration played a decisive role in the industrialization of Japan, through the process of state control, centralization of Zaibatsu capital and finally mobilization of smaller enterprises.

II. *Postwar Change*

The structure of Japanese industry underwent a marked change after World War II.

Japan's surrender in World War II and the subsequent Allied occupation brought about a democratic reform in various phases, such as political, economic and social. This reform gave a serious shake towards paternalism, nationalism and capital concentration which formed the basis of Japanese industrialism before and during the war. It dampened the old guiding spirits in the world of labor and management.

(1) The economic concentration by the Zaibatsu in Japan ended with its dissolution by the Allied occupation forces. The Anti-Monopoly Law which was enacted soon after the war put an end to monopolistic concentration of capital, while the Government control and aid for industries were discontinued. Thus dawned the era of free economy in Japan and free competition which replaced the trend of capital concentration came to lead the way toward development of industrialization.

Although free economy gave rise to the problem of excessive competition in Japan today, it must be noted that it gave much impressive contribution to the dynamic development of the Japanese industry after the war.

(2) Ultra-nationalism lost its influence on Japan's labor and management completely after the war. Industries liberated from the yoke of Government control and interference got their independence and began to seek profits freely under the banner of free economy.

There arose, at the same time, a question of what should be the new guiding spirit of the enterprises of today and what responsibility they should bear to the society. What relationship the Government and industries should maintain also has come to be debated actively.

(3) Laborers came to acquire an equal footing with their employers. They are now allowed to form trade unions to maintain their independence and protect

their interests. Postwar democratization progressed most actively in the field of labor and, as a result, a great change has come to the relations between labor and management. The trade union thus formed has now become an undeniably big force in the development of industrialization after the war.

(4) Such a remarkable development of trade unions dealt a crushing blow to the management based on paternalism. Paternalism with its authoritative and dictatorial trends met with stiff resistance by trade unions. Its favoritism was also opposed because it went counter to the independence of laborers. The co-operative effect of paternalism was doomed to extinction. This, it can be assumed, is the very reason why labor and management in postwar Japan lack mutual collaboration and harmony.

Japanese enterprises, however, are now trying earnestly to learn and adopt the principles and techniques of the management that developed in the United States. Such efforts, it can be said, indicate their earnest wish to find new guiding spirits and techniques that will replace paternalism.

(5) The democratic reform that took place in Japan after the war led the management to a big turning-point as stated above. The reform, however, did not democratize completely all phases of Japanese society because it was one initiated from outside, that is, by occupation authorities. Therefore, there still remain not a little prewar trends and tendencies in some phases.

Such trends and tendencies do remain in the world of business. However, new ideas and principles are exerting great influences on labor and management gradually but steadily. Such a change means a change to paternalism itself, while prewar industries developed through harmonization of modern production techniques with paternalism.

Paternalism which harmonized with production techniques before the war has now been vanishing the reason of its existence practically because its cooperative effect has lost its significance. This is nothing but the result of the aforesaid democratic reform.

Further, the question arises as to whether the present production techniques, now in a stage of innovation or on the road to automation, will harmonize with a paternalistic form of management. The answer seems to be no.

Paternalistic management existed under paternalistic personal leadership. There was, therefore, no management in the true sense of the term nor was there any concern about it. The old personal leadership has now proved to be utterly inadequate for meeting the latest technical innovation and expansion of the scale of enterprise. Thus a new principle of business management has come to be sought.

This is the second reason why increasing study and adoption of the new principles and techniques of management are being made in Japan. Such efforts are being made under the slogan "to modernize management to cope with the modernization of industrial equipment."

III. *Characteristics of Management and Labor in Japan's Enterprises*

The management of enterprises in Japan has such characteristics as mentioned already. A concrete explanation will be made hereunder on this point.

(1) In Japan's enterprises conspicuous features can be found in respect to the relation between the enterprise and employees. It may be said the relation between them is marked by a lifetime commitment, so to speak, in which something like permanent employment is furnished.

That is to say, Japanese employees serve with the same company until they reach the age of retirement—usually 55 years—once they have been hired there. They do not leave the enterprise where they have obtained employment first, even if they may feel discontented or have chances to change their job. In other words, they stick to the same company until they reach the age of retirement once they have joined it unless something extraordinary happens. On the other hand, the firm continues to employ persons up to such age-limit after it has taken them into its service even if it is found later that they are incompetent or there are no longer works suitable to them. They are dismissed only in special cases where, for example, they commit penal offenses or the company is thrown into a dangerous position financially or otherwise.

In the American industrial world persons freely choose their work places and join any company they like and they would move to other ones where better working conditions are offered. In the meantime, the enterprise engages employees from the viewpoint of its work and therefore it fires them in case there are no longer jobs suitable for them. In America, contracts of employment are concluded between employers and employees at their free will.

In Japan, too, the relation between the employer and employee is based on the contract of employment as a matter of form, but actually a different relation as referred to above exists between them. There are still quite a number of companies which demand the submission of written pledges by new employees when they take the latter into their services. An investigation in 1952 concerning 375 companies in the Kanto District belonging to the Kanto Management Association revealed that about two-thirds of them got written pledges from new employees.

An employee is regarded as a member of the enterprise in the same sense that he is a member of his family, and an employee is treated actually as such. (2) The employment of an individual by the enterprise means to the latter the engagement of a person who will become a member of the enterprise and share the fate with it. The enterprise does not intend to secure the skill of an individual, but rather employs a man himself or woman herself without due regard to his or her merits. Of course, the enterprise is not considered to employ its personnel entirely independently of its work, but the relation of the employment of a person to his work is merely general.

It is the practice among Japan's enterprises to employ each year university

and high school graduates by fixing numbers respectively and to employ new graduates on the basis of school records and personality. Thus, in engaging new personnel, importance is attached to personality rather than on skill.

(3) The life in the work place of those who have joined a company is not differentiated from their private life. In American enterprises a sharp line is drawn between the private life of employees and their life in the work place. But in Japan employees are lifetime members of the enterprise and their fate is directly related to that of the enterprise. It, therefore, looks after the private life of employees, undertaking even the cultural education of their wives.

(4) As regards wages, too, there can be seen apparent features.

In American enterprises, wages are connected with the work itself and further with the prosecution of work. However, in Japan the basis of wages is the educational background (or the kinds of school from which employees were graduated), ages, the length of employees' services, etc. In addition to wages, there are various allowances, but most of them have no relation to the employees' efficient prosecution of work—the family allowance may be mentioned as one of such allowances. Accordingly, wages do not serve as an incentive to work, but the loyalty to the company and the passion for work lead employees to perform their duties. It may be interpreted that wages are not paid according to the duties and efficiency of the employees but that wages mean to a considerable extent rewards for the employees' loyalty to the company.

(5) Meanwhile, since those working for enterprises are permanent employees, their treatment is an important question. To give satisfactory treatment to the employees, various administrative positions are created, with the result that, in some extreme cases, one in every three employees hold some kind of administrative title.

These administrative positions are made not necessarily to meet the need for the prosecution of work, but they are established in many cases rather to give better treatment to employees for the purpose of keeping up or heightening the morale of the employees. Once such a practice is set up, the administrative rank in the company will certainly increase, and the ranks from the president to ordinary workers are divided into nine in some cases. There the paternalistic hierarchy is constituted.

The responsibility and authority in each position are not prescribed clearly. Under the present system the chief executive of the enterprise is charged with all responsibilities and those in other positions exercise only such functions as to assist the chief executive, the responsibility and authority of each position being quite vague.

The president of the enterprise can make a perfect one-man control, if he exercises fully the almighty power in his hand, but in many enterprises the great power of the chief has become nominal and actually the group of executive officials concerned makes decisions.

The decision is made on the basis of collective views by such a method as "ringi" (or consideration by a circular) or by meetings. In the case of "ringi",

matters for consideration are described in a certain form and circularized among persons concerned for deliberation and decision.

Such a practice is followed deliberately so as to leave vague the responsibility and authority of individual persons and to allow the collective body of personnel to decide matters directly. The idea to clarify the responsibility and authority of an individual person is rejected for the reason that it would worsen the personal relationship in a company. If the responsibilities of individual persons were clarified, the situation of an individual becomes often very delicate, and he will suffer a fatal blow under the system of permanent employment. In adoption of the management method, it is, therefore, intended consciously to avoid the occurrence of such incidents.

(6) As regards the management of an enterprise with permanent employees, importance is attached particularly to harmony or cooperation, and in prewar years all enterprises in Japan regarded "harmony" as their basic policy. The management philosophy of harmony, "Wa", is the fundamental feature of the enterprise management of Japan.

Such management philosophy was carried through even at the sacrifice of efficiency in operations. It may be presumed that by introduction of management method based on "harmony", the cooperative conduct among the personnel was expected to produce satisfactory results which would more than cover the sacrifice of individual efficiency in operations.

Attention should be paid to the fact that "harmony" was preserved by paternalistic means. The personal relationship resting on cooperative spirits was engendered in the atmosphere of paternalism. Furthermore, there exists a difference in status and rank.

The administrative position itself referred to above was given to employees as a token of betterment of treatment and it was become a sign of status in the company. Apart from this, there was the proper personal status system.

In the factory, the physical laborer was given the status of factory hand, "koin", while clerical and administrative workers were given the status of staff members, "shokuin", and their treatment was differed.

This system was abolished by one company after another with the growth of labor unions after the war's end. But, as a result of the investigation mentioned above, it is known that 33 per cent of enterprises still maintain the said personal status system.

Further, in prewar years there was a system under which employees were classified by the length of their services and others into a number of ranks, and wages and other treatments were varied according to these ranks. This system, too, was done away with by one enterprise after another subsequent to the war's end, but according again to the above mentioned investigation, enterprises which still maintain this system in respect to factory hands (or physical laborers) are 35 per cent of the total enterprises while those keeping it in respect to staff members are 41 per cent.

(7) The feature of Japan's business management was represented by the permanent employment system with the paternalistic background as has been explained. Under this system an enterprise exists for itself and employees are, as members of enterprise, united with the enterprise in one body. Thus, the relationship that capital and labor or the employer and employees stand against each other apart from enterprise is obscure.

This fact is reflected plainly in the ambiguous status of the foreman in Japan's enterprise. The foreman of such a pattern as seen in America cannot be found in enterprises of this country. There is a difference between the administrative class and the labor class in status, the former being called staff members and the latter, factory hands. Although they differ in status, they are considered the same in substance as members of the enterprise. The foreman in a sense belongs to the administrative class, but at the same time comes under the labor class, and therefore he served as a contact man between capital and labor.

Under the permanent employment system like the one in Japan, there is antagonism between enterprises themselves rather than between capital and labor or between the employers and employees. Accordingly, competition between enterprises in Japan frequently become fierce.

In the meantime, Japan's enterprises, in their activities, lack social sense and this results in the egoism of enterprises. For this reason, there can hardly be fair competition.

After the war, the labor unions have made remarkable progress, but the permanent employment system has given them the characteristics of trade unions on the basis of enterprise.

IV. *Points at Issue after the War*

In Japan's enterprises, the cooperation based on paternalism which was termed, as stated above, "wa" (harmony) had been regarded as the underlying spirit of the management of enterprises. And the industrialization of this country has been effected by use of modern production techniques driven by the power of cooperation created in the above manner.

However, due to drastic postwar changes in conditions, the old management method is now becoming ineffective. Under these circumstances, Japan's enterprises are required to establish modern management leadership.

It must be considered that movements now organized in Japan for raising industrial productivity are faced with the task of accomplishing the rapid development of industrialization by setting up modern management leadership.

(1) As a result of the abolishment of ultra-nationalism, the elimination of government protection of, control over and intervention in enterprises, the disintegration of Zaibatsu and the enactment of the Anti-Monopoly Law, it becomes an urgent problem that the practice of fair competition be established, social res-

possibilities of enterprises be aroused, and a new relationship be established between the Government and enterprises.

(2) As a result of the development of labor unions and the spread of democratic ideas, the structure of cooperation based on paternalism is collapsing. Japan's enterprises are faced with the necessity of establishing a new personal relationship of cooperation among the personnel along democratic lines instead of cooperation resting on paternalism as in the past.

They are also confronted with the question of setting up a new order based on functional efficiency in lieu of the status system based on personal eligibility.

(3) The improvement of technique, the appearance of automation process, the modernization of equipment and the expansion of scale of enterprises emphasize the need of a rational system suitable to work and the need for the new cooperation. Effective management of a modern large scale enterprise is possible only when individuals' function, responsibility and authority based on their individual works are clarified and these are integrated rationally as a whole of an enterprise.

It is a new question before Japanese enterprises to build up a rational system for management, which includes the following: to exercise rational management in conformity with work; to clarify the individual's function, responsibility and authority and to integrate rationally the results of these efforts on the basis of work in order to bring the power of unity into full play as a whole of an enterprise.

In the sense I mentioned above, enterprises in this country must establish the modern management leadership. In this case, democratic and functional relationship will have to be established. Accordingly, the new management formula is fundamentally different from the old one. This is really a revolutionary change. Therefore, the resistance to the new management formula is unavoidable, but efforts are being made to overcome this difficulty. There is now in Japan's enterprises a catch phrase, "atmosphere creation". It means that there is a necessity to create within enterprises adequate atmosphere conducive to modern management if it is to be introduced.

In the meantime, able managers of present-day Japan advocate the new orientation of management but they do not forget to show at the same time their interest in the old system.

In conclusion, an explanation will be made as to two important questions with which the Japan's enterprise is faced in its attempt to establish management leadership.

(1) The first of them is the question concerning the relation with paternalism. The modern management method runs counter, in principle, to paternalism. Meanwhile, although the traditional Japanese social structure contains feudalistic elements, there is also an element something like a racial community. So long as paternalism in Japan contains the latter element, it has the character of the community of common people which is contrasted with the feudalistic character. This character has not been baptized with modern spirits, but it is not autocratic.

tive alike feudalistic communities and there are latently within it the humanism in its crude form.

Anyway, under the system of feudalistic paternalism there is only stagnancy and decadence, and therefore the application of democratic management is difficult. However, in enterprises which contain rather strongly the element of the community of common people, they have the flexibility to absorb things rational and modern because of their popularity and activity.

There still exists in this country enterprises where the traditional formula is used rather positively as the basis for management. In some such enterprises, business is stagnant because of adherence to tradition, while others have achieved excellent business results by making positive advances while the reform of techniques was under way. Hitachi, Ltd. is the most representative of the latter kind of enterprise. It should be pointed out that although the traditional trend is maintained there, the enterprise possesses the character of the community of common people.

In a new enterprise where there is no tradition, the introduction of modern management formula is made with comparative ease.

In the industrial world around Osaka, where the industrial revolution of Japan was pushed forward, the spirits of rationality and independence are rather strong. Here the modern management formula is positively introduced in comparison with the industrial world in the Tokyo district which has been fostered and protected by the Government.

(2) The second question is that of the relationship between enterprises and, permanent employees. Although permanent employment originated from the social structure based on paternalism, there have come to the fore after the war various factors in maintaining or promoting the permanent employment system. The postwar Japan is especially groaning under overpopulation, and therefore a person who has once lost his job experiences great difficulty in finding proper employment. Under these circumstances, it is natural that the permanent employment system should be adopted.

Furthermore, the emergence of labor unions in this country after the war contributes to the maintenance of the said system. The labor unions in Japan are organized on the basis of enterprises. The unions insist on the promotion of wage system based on the length of employees' services and strongly oppose dismissal of employees. This attitude on the part of labor unions result in the strengthening of the permanent employment system.

The fact that this system is maintained at the sacrifice of other things gives rise to another question. The adoption of the system of permanent employment leads enterprises to loss the flexibility of management, which is a primary requirement in postwar Japan because of the unstable and fluctuating economy. Accordingly, it was necessary to find something else which would play the role of a buffer against fluctuation in enterprises if the permanent employment system was to be maintained. For this purpose, the system of temporary workers has been instituted.

The temporary worker is employed under a short-term contract and, unlike regular workers, can be dismissed whenever the circumstances of the enterprises calls for it. The system of temporary employment is adopted by almost all employers and it is now being the normal matter. Attention should be paid to the fact that the permanent employment system is maintained at the sacrifice of non-permanent employees.

Enterprises also demand sacrifices of medium and small enterprises by mobilizing the latter's services as subcontractors. In times of prosperity a company relegates part of the orders it receives to subcontractors, but when orders decrease in times of depression, the company cuts off its connection with the latter, and thus it shifts to medium and small enterprises (which is the subcontractors) the effects of fluctuation in the amount of orders. Accordingly it may be said that permanent employees are connected chiefly with large-sized enterprises and that the permanent employment system is maintained in a sense at the sacrifice of small-sized enterprises which serve as subcontractors. In many medium and small enterprises the non-permanent employment system is adopted unlike in the case of large-sized enterprises. It may therefore be stated that the permanent employment system exists in the unbalance of the national economic structure,

The existence of such an employment system sets limits to the introduction of the modern management formula. Under the permanent employment system it is difficult to establish the modern personal relationship completely on a functional basis and it is also hard to set up fully the rational organization in conformity to work.

This forms an important basic question for Japan's enterprises demanding an urgent solution.

Note I: We have two very good books concerning the management in Japan. These are S. B. Levine: *Industrial Relations in postwar Japan*, 1958, and J. G. Abeglen: *The Japanese Factory, Aspects of its social organization*, 1957. Both books have made very much contribution to the study of the characteristics of the Japanese management in Japan. My paper owed many things to both books.

Note II: I made a research in June, 1958 of how the modern management methods are being adopted in Japanese big enterprises. I could receive replies to my research-enquete from 124 big companies which are assumed to be representative of Japanese enterprises. Summary of results of my research is as following table.

	All industries (124 companies)				Food (5 companies)				Textile companies) (10				Paper and pulp (5 companies)				Chemical (35 companies)				Metal (8 companies)				Industrial machinery (7 companies)					
	Yes	%	Being Planned	No	No answer	Yes	Being Planned	No	No answer	Yes	Being Planned	No	No answer	Yes	Being Plannend	No	No answer	Yes	Being Planned	No	No answer	Yes	Being Planned	No	No answer	Yes	Being Planned	No	No answer	
System of group decision of top-management (Jomukai)	95	77	3	21	5	4	0	1	0	9	0	1	0	5	0	0	0	26	0	7	2	6	0	1	1	5	0	2		
Is it established?																														
Are there regulations to specify responsibilities and authorities of Jomukai	43	35	34	14	33	2	0	2	1	4	3	2	1	3	2	0	0	13	9	4	9	1	2	3	2	2	3	0	2	
Is secretariat attached to it?	68		5	8	17	31	3	0	1	1	5	1	3	1	3	0	2	0	19	3	1	12	4	1	2	5	0	1	1	
The number of secretariat having planning and coordinating nature	34	(50)	—	—	—	0	—	—	—	4	—	—	—	0	—	—	—	10	—	—	—	0	—	—	—	5	—	—	—	
Is there fulltime administrative staff	75	61	—	—	—	3	0	0	0	8	—	—	—	3	—	—	—	20	—	—	—	5	—	—	—	4	—	—	—	
Administrative staff serving also as secretarial staff to Jomukai	34	(45)	—	—	—	0	—	—	—	3	—	—	—	1	—	—	—	13	—	—	—	1	—	—	—	3	—	—	—	
Implementation of job analysis	86	69	12	23	3	2	0	3	0	9	0	1	0	4	0	1	0	23	2	9	1	5	0	2	1	6	1	0	0	
Basic policies announced in written statement	38	31	—	—	—	2	—	—	—	3	—	—	—	4	—	—	—	10	—	—	—	2	—	—	—	3	—	—	—	
Existence of comprehensive long-term plans	59	48	32	22	11	0	2	3	0	4	4	1	1	2	2	0	15	8	9	3	5	1	0	2	5	2	0	0	0	
Implementation of profit control	89	72	15	9	11	3	1	1	0	9	0	1	0	5	0	0	0	28	5	1	1	4	2	0	2	7	0	0	0	
Implementation of budget control	104	89	8	7	5	3	1	1	0	8	1	0	1	4	0	1	0	31	1	2	1	6	0	0	2	6	1	0	0	
Are there budget control regulations	69	56	32	12	11	1	2	2	0	5	4	1	0	3	1	0	1	18	12	1	4	4	2	0	2	4	2	1	0	
Implementation of cost control	82	66	13	13	16	3	1	—	1	8	1	0	1	5	0	0	0	27	1	4	3	6	0	0	2	6	0	1	0	
Use of statistical computer	(16) 54	43	30	17	7	(2) 0	1	2	0	(2) 6	2	0	0	(1) 0	3	0	1	(3) 15	10	6	1	(1) 2	1	2	2	(1) 3	3	0	0	0
Use of Electronic computer	12	10	22	60	30	0	0	4	1	2	2	4	2	0	0	1	4	2	7	18	8	1	2	2	3	0	0	6	1	
Use of teletype-writer	80	65	11	28	5	1	1	3	0	8	0	2	0	5	0	0	0	25	4	5	1	5	0	1	2	3	1	3	0	
Introduction of I. D. P.	3	0.2	26	75	20	0	0	5	0	0	4	5	1	0	0	3	2	1	6	24	4	1	2	3	2	0	0	6	1	
Are there regulations on reports?	27	22	43	49	5	0	0	5	0	1	5	4	0	0	1	4	0	7	13	15	0	0	3	3	2	1	3	3	0	
Registration of reports	29	23	33	50	12	0	0	5	0	4	3	3	1	0	2	3	0	9	9	15	2	0	4	2	2	1	3	3	0	
Are there regulations on vouchers?	54	44	35	31	4	2	0	3	0	9	1	0	0	1	0	4	0	15	13	7	0	2	4	1	1	2	5	0	0	
Implementation of accounting auditing	111	90	4	4	5	5	0	0	0	9	0	1	0	5	0	0	0	31	2	1	1	5	0	1	2	6	0	1	0	
Are there accounting auditing regulations?	76	61	18	23	7	3	0	2	0	7	1	2	0	2	0	3	0	20	5	8	2	2	2	2	2	4	2	1	0	
Implementation of efficiency auditing	79	64	17	22	6	5	0	0	0	6	1	2	1	4	0	1	0	21	6	7	1	2	2	2	2	6	1	0	0	

Electrical machinery (6 companies)				Transportation machinery (10 co.)				Mining (3 companies)				Land transportation (5 companies)				Marine transportation (2 companies)				Electric power gas, telephone (8 companies)				Insurance, financing (9 companies)				Others (6 companies)			
Yes	Being Planned	No	No answer	Yes	Being Planned	No	No answer	Yes	Being Planned	No	No answer	Yes	Being Planned	No	No answer	Yes	Being Planned	No	No answer	Yes	Being Planned	No	No answer	Yes	Being Planned	No	No answer	Yes	Being Planned	No	No answer
4	0	2	0	8	0	1	1	4	2	2	0	4	0	1	0	1	0	1	0	4	1	2	1	9	0	0	0	6	0	0	0
1	2	0	3	5	1	0	4	2	1	1	4	1	2	1	1	1	0	0	1	2	1	0	5	2	7	0	0	4	1	1	0
2	0	2	2	5	1	2	2	3	0	1	4	3	0	1	1	1	0	0	1	3	0	1	4	8	1	0	0	4	1	1	0
1	—	—	—	1	—	—	—	0	—	—	—	2	—	—	—	1	—	—	—	3	—	—	—	5	—	—	—	2	—	—	—
2	—	—	—	5	—	—	—	1	—	—	—	4	—	—	—	1	—	—	—	8	—	—	—	7	—	—	—	4	—	—	—
1	—	—	—	1	—	—	—	0	—	—	—	1	—	—	—	1	—	—	—	3	—	—	—	5	—	—	—	1	—	—	—
5	1	0	0	7	0	2	1	7	1	0	0	4	1	1	0	0	1	1	0	6	1	1	0	5	2	2	0	2	2	2	0
3	—	—	—	3	—	—	—	0	—	—	—	1	—	—	—	0	—	—	—	4	—	—	—	1	—	—	—	2	—	—	—
4	1	1	0	6	1	1	2	4	2	2	0	3	1	1	0	2	0	0	0	8	0	0	0	1	5	1	2	1	3	1	1
4	1	1	0	9	0	0	1	6	1	1	0	4	1	0	0	0	1	1	0	2	3	2	1	5	0	0	4	2	1	1	2
4	1	1	0	9	0	0	1	8	0	0	0	5	0	0	0	2	0	0	0	8	0	0	0	6	1	2	0	4	2	0	0
2	3	0	1	6	0	2	2	5	2	1	0	4	1	0	0	1	0	1	0	8	0	0	0	6	1	1	1	2	2	2	0
4	2	0	0	8	1	0	1	7	0	0	1	1	0	3	1	1	1	0	0	3	3	2	0	1	1	2	5	2	2	1	1
(2) 2	1	0	1	(1) 5	2	1	1	(1) 4	1	2	0	(2) 1	1	0	1	1	0	1	0	6	1	1	0	8	1	0	0	1	3	2	0
1	1	2	2	1	2	5	2	0	0	5	3	0	2	3	0	0	1	1	0	2	3	3	0	3	2	4	0	1	0	3	2
5	0	0	1	7	0	2	1	6	0	2	0	1	0	4	0	2	0	0	0	1	4	3	0	6	1	2	0	4	0	2	0
0	2	3	1	0	1	7	2	0	0	5	3	0	1	4	0	0	0	2	0	1	5	2	0	0	3	4	2	0	2	2	2
3	2	1	0	3	3	2	2	2	1	4	1	2	0	3	0	1	1	0	0	5	3	0	0	2	4	3	0	0	4	2	0
2	2	2	0	2	3	1	4	2	1	4	1	1	0	4	0	0	1	1	0	6	1	0	1	2	2	5	0	1	3	1	1
5	1	0	0	5	3	1	1	3	2	3	0	1	0	3	1	1	0	1	0	3	1	3	1	2	3	4	0	3	2	1	0
6	0	0	0	9	0	0	1	7	1	—	0	4	0	0	1	2	0	0	0	8	0	0	0	9	0	0	0	5	1	0	0
4	1	1	0	7	2	0	1	5	2	1	0	3	0	0	2	2	0	0	0	5	2	1	0	7	0	2	0	5	1	0	0
5	0	1	0	4	0	4	1	3	2	3	0	4	0	0	1	0	2	0	0	8	0	0	0	7	1	1	0	4	1	1	0

NEO-FORDISM

—Drucker's Thought on Business Enterprise—

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What we here characterize as neo-Fordism is the thought of Professor Peter F. Drucker of New York University on business enterprise or on the basic principle of business management derived therefrom. In my opinion, what Drucker describes can be understood as a new development of Fordism, and in this sense it can be characterized as neo-Fordism. To clarify the reasons is the purpose of this article.

In order to accomplish this purpose, we must begin by describing the characteristics of what we understand as Fordism.

I. *Fordism*

It is generally understood that Fordism means the thought of Henry Ford (1863-1947) on business enterprise or on the basic principle of business management derived therefrom. Ford proposes that a business should exist as an "instrument of service", a "service instrument" or a "service organization",¹ and that the purpose of a business should, therefore, be "service". This is the first characteristic of Fordism and it is often called the "service motive".² Ford declares this service to be raising the standard of living of the public, meaning 90-95% of the population; that is, the worker.³ Then, the service proposed by Ford can be said to be the raising of the worker's standard of living. This means increasing the purchasing power of the worker, and can be realized by lowering prices of goods which the worker purchases, or "low prices", on the one hand, and by increasing the income of the worker, or "high wages", on the other hand. Thus, the purpose of a business, as an instrument of service, should be the realization of low prices and high wages. That is the reason Fordism or the "service motive" is usually understood as the "principle of low prices and high wages."

Now, Ford's insistence upon the "service motive" or Fordism denies the "profit motive", which sees a business as an "instrument of profit" and finds the purpose

¹ cf. H. Ford *My Life and Work*, N. Y., 1926, p. 161, and H. Ford, *Today and Tomorrow* N.Y., 1926, p. 27, p. 28, and p. 12.

² cf. Ford, *Today*, pp. 271-272. Ford also often called the "service motive" the "wage motive". These two concepts are used interchangeably by Ford.

³ cf. Ford, *My Life*, pp. 47-48, and cf. Ford, *Today*, p. 248.

of a business in profit. Ford interpreted the "profit motive" as the "principle of high prices and low wages", which sacrifices the public or worker in two ways: by high prices on the one hand and by low wages on the other. Ford thought this to be the inevitable result of finding the purpose of a business in profit. If a business should be an instrument of service, undoubtedly such a profit motive ought to be denied and replaced by the service motive. Indeed, Ford proposed the service motive, or Fordism, in order to deny the profit motive.

The reason Ford proposed such a service motive was that he believed it, not the profit motive, to be the "law of business". In other words, he did not propose Fordism because of any subjective or ethical requirement. We should remember that Ford heartily disliked charity and altruism. According to his opinion, Fordism is not in any way altruistic. On the contrary, it is a necessary law, and only when a business obeys this law, can it maintain its existence and development. The "law of business" in the economic and industrial world is, according to Ford, as objective and necessary as the "law of gravitation" in the natural world. When we act in accordance with their requirements there are no obstacles in our way, but when we act in defiance of or against them, strong resistance and pressures arise; "...the laws of business are like the law of gravity, and the man who opposes them feels their power".⁴ The "service motive" is proposed as such an objective law of business, and we should understand that what enables a business to exist and prosper is, according to Ford, the public or workers. "The public and only the public can make a business".⁵

Ford denied the profit motive or profit principle, but he did not deny the raison d'être of profit. He denied establishing profit as the purpose of a business, but he did not deny the occurrence of profit in a business. Moreover, he emphasized that profit itself is a true source of the "business vitality" which maintains the existence and assures the prosperity of a business. Then, to Ford, profit is essential to a business. "Without a profit, business cannot exist. There is nothing inherently wrong about making a profit."⁶

Now, we must examine the relation between the "service motive" and "profit". According to Ford, profit is in no way the purpose of a business, because service should be the only purpose of a business. Business acts in order to perform a service, but the necessary result of this is a profit. In other words, to deny profit as the purpose of a business is to deny the profit motive, and to recognize profit as the result of business is the meaning of profit in the service motive. Profit "cannot be the basis—it must be the result of service".⁷

How can the performance of a business operated on the basis of the service motive be measured or tested? Ford found a measure in the amount of profit resulting from business activities. In his opinion, the higher the degree of realization of service that a business makes its goal, the larger the profit as the result

⁴ Ford, *My Life*, p. 158.

⁵ Ford, *Today*, p. 16.

⁶ Ford, *My Life*, p. 20, and p. 273.

⁷ Ford, *My Life*, p. 20, and p. 273; and cf. Ford, *Today*, p. 229.

of its activities. Of necessity, the performance of a business is measured by the amount of its profit. "Well-conducted business enterprise cannot fail to return a profit, but profit must and inevitably will come as a reward for good service".⁸

II. Neo-Fordism

—Characteristics of Drucker's Thought on Business Enterprise—

According to Drucker, a business or business enterprise is essentially an industrial enterprise. It is described as the decisive, representative and constitutive institution of industrial society, the society which was established as a result of the industrialization of the society by means of the mass-production revolution; that is, as the result of the world industrial revolution. This revolution had its beginning in the production of the first "Model T" by Henry Ford.⁹

Drucker finds the purpose of such a business or industrial enterprise in the "creation of a customer". He says: "There is only one valid definition of business purpose: *to create a customer*."¹⁰ Although Drucker's view of the purpose of a business is different from that of Ford, there is an essential similarity. Both find the purpose of a business in the creation of a market. Ford found it in the enlargement of the purchasing power of the public, which can be understood to be the creation of a market. Drucker finds it in the creation of a customer, which also can be understood to be the creation of a market. However, the market which Ford intended to create by service was a general market not specific to any definite business, while the market which Drucker intends to create is a special market peculiar to some definite business, namely the customer of the business. Therefore, while the purpose of a business which Ford defined can be understood to be more social, what Drucker defines should be understood to be more closely related to the business itself.

Now, when Drucker insists upon defining the purpose of a business as the creation of a customer, he also denies the "profit motive" or "profit principle". However, Drucker is more elaborate in his denial of the profit motive than Ford. We can find three kinds of denial of the profit motive in Drucker's views.

The first kind of profit motive denial is found in Drucker's opinion that the profit motive is always personal or individual, and such a personal or individual motive can never be relevant to the principle of business enterprise. He says: "The root of the confusion is the mistaken belief that the motive of a person—the so-called 'profit motive' of the businessman—is an explanation of his behavior or his guide to right action". "The profit motive and its offspring, maximization of profits, are just as irrelevant to the function of a business, the purpose of

⁸ Ford, *My Life*, p. 20, and p. 273.

⁹ cf. P. F. Drucker, *The New Society, the Anatomy of Industrial Order*, N. Y., 1949, p. 1 and pp. 27-37.

¹⁰ P. F. Drucker, *The Practice of Management*, N. Y., 1954, p. 37.

a business and the job of managing a business",¹¹

The second kind of profit motive negation is the denial of profit as a business purpose, because, according to Drucker, the latter should be found only in the creation of a customer, not in profit making. This is theoretically the most important denial of the profit motive in Drucker's view, because, in this assertion, the profit motive is discussed not as a personal or individual motive but as a motive related to the business itself; that is, as a business motive. He says: "The average businessman when asked what a business is, is likely to answer: 'An organization to make a profit'. And the average economist is likely to give the same answer. But this answer is not only false; it is irrelevant." "This does not mean that profit and profitability are unimportant. It does mean that profitability is not the purpose of business enterprise and business activity, but a limiting factor on it".¹² Here we should note that this denial of the profit motive is identical with that found in Fordism.

The third kind of profit motive negation is found in the opinion that a business does not aim at maximization of profit, but only at realization of an "adequate profit" in the meaning of a "required minimum profit".¹³ We should be aware that this assertion necessarily acknowledges profit as the purpose of a business, insofar as it is within the limit of "required minimum profit" or "adequate profit". Thus, strictly speaking, it is not actually a denial of the profit motive or profit principle.

Examining the reason Drucker insists upon his view of the purpose of a business, we find that it is because he believed that such a view represents the objective needs of a business enterprise as an institution of an industrial society. According to him, an industrial enterprise should be managed in accordance with its own objective needs. Fundamentally, these are to realize the "survival and prosperity of the enterprise", the "very survival of the enterprise" or the "self-preservation of the enterprise".¹⁴ Drucker says: "The customer is the foundation of a business and keeps it in existence. He alone gives employment".¹⁵ Then, "to create a customer" is, by objective necessity, required for a business to realize its "survival and prosperity".

Thus, as the purpose of a business, Drucker neither proposes the creation of a customer nor denies the making of a profit because of any subjective or ethical requirement, but because of the objective requirements of the business itself. This is the same as Ford's proposal of service, not profit, as the purpose of a business because of the "law of business". For Ford's "law of business" Drucker substitutes the "objective needs of the enterprise," which should equally be understood as the necessary law. Here, we should note that Drucker strictly disting-

¹¹ Drucker, *Practice*, p. 36.

¹² Drucker, *Practice*, p. 35.

¹³ "required minimum profit" is also called "needed minimum profit", "minimum profit needed" or "minimum necessary profit". cf. Drucker, *Practice*, p. 47, p. 60, and p. 91.

¹⁴ cf. Drucker, *New Society*, p. 47, p. 50, p. 61, p. 204, p. 314, and Drucker, *Practice*, p. 62, p. 63, p. 120, p. 127, p. 204, p. 383, etc.

¹⁵ Drucker, *Practice*, p. 37.

uishes between personal preference and the objective needs of the business.¹⁶

As mentioned above, Drucker denies the profit motive or profit principle, but he does not deny the *raison d'être* of profit. He denies the establishment of profit as the purpose of a business, but he does not deny the occurrence of profit in a business. Moreover, he greatly emphasizes the importance of profit. He says: "The enterprise must operate at an adequate profit—this is its first social responsibility as well as its first duty toward itself and its workers".¹⁷ Further, "...profitability must be the sovereign criterion and rationale of the enterprise. It is the expression of both its responsibility to itself and its responsibility to society".¹⁸

Concerning the relation between the "creation of a customer" as the purpose of a business and profit, Drucker says "... profit is not a cause. It is the result—the result of the performance of the business in marketing, innovation and productivity. It is at the same time the test of this performance—the only possible test..."¹⁹ That is, profit is not understood as the purpose of a business but only as the result of business activities intended to perform its purpose. This opinion is the same as that of Ford. Drucker describes two kinds of functions needed to achieve the purpose of a business, that is the creation of a customer. The first is the entrepreneurial and creative function, which includes the two basic functions of marketing and innovation. The second is the administrative and bureaucratic function, which means the productive utilization of wealth-producing resources, the economic aspect of which is called productivity.²⁰ Then, according to Drucker, business activities intended to fulfil the purpose of creating a customer, occur in relation to marketing, innovation and productivity, and profit results only from these activities.

Moreover, profit is understood as the test of business performance. This opinion is also just the same as that of Ford. According to Drucker, profit "measures the net effectiveness and soundness of a business's efforts. It is indeed the ultimate test of business performance",²¹ and the only possible test.

III. *Contradictions in the Denials of the Profit Motive*

We have made it clear that both Fordism and neo-Fordism deny the profit motive or profit principle. While in Fordism the denial of the profit motive is the denial of profit as the purpose of a business, in neo-Fordism, it is more than this. However, there is no doubt that even in neo-Fordism the essential aspect of the denial of the profit motive is found in the denial of profit as the purpose

¹⁶ cf. Drucker, *Practice*, p. 197, and Drucker, *New Society*, p. 72.

¹⁷ Drucker, *Practice*, p. 271.

¹⁸ Drucker, *New Society*, p. 73.

¹⁹ Drucker, *Practice*, p. 46.

²⁰ cf. Drucker, *Practice*, pp. 38-41, and pp. 68-69.

²¹ Drucker, *Practice*, p. 76.

of a business. Thus, we shall examine this aspect first.

Both Ford and Drucker eliminate profit making as the purpose of a business, while insisting that profit is the only test or measure of the performance of business activities. This is one of the most characteristic features of Fordism and neo-Fordism. However, as explained below, we cannot theoretically recognize such a view.

Business activities are activities which are intended to fulfil the purpose of a business. The performance of business activities can be judged only by a criterion which clearly indicates to what extent the purpose of a business is fulfilled. Because the test or measure used to judge the performance of business activities should be such a criterion, it can no longer be irrelevant to the purpose of a business. On the contrary, it can only be found in relation to the business purpose itself. The fact that both Ford and Drucker recognize profit as the only or ultimate test of business performance, implies logically that, in spite of their different persistence, they recognize profit as the only, or ultimate, purpose of a business. Thus, we must emphasize that, if we should recognize profit as the test or measure of business performance, the denial of the profit motive, which eliminates profit as the purpose of a business, can not be logically justified.

This can be demonstrated in another way. Both Ford and Drucker exclude profit as the purpose of a business, but recognize it as the essential result of business activities. However, this also cannot be admitted theoretically. There is no doubt about the fact that profit is the result of business activities. In other words, the problem is not whether profit is the result of business activities; the problem is whether profit is the intended result, that is, whether profit is what is intended to be realized as the purpose of a business. Now, business activities are conscious and planned activities to fulfil the purpose of a business. If profit were a mere result irrelevant to the purpose of a business, it might be the incidental or inevitable result of business activities which could be either desirable or undesirable. Planned activities should endeavour consciously to increase desirable results on the one hand, and to eliminate or, at least, decrease undesirable results on the other hand. In other words, so long as profit is desirable, conscious and planned business activities should intend to increase profit as the conscious purpose of a business. Profit is recognized by both Ford and Drucker as a result essential to the existence or the survival and prosperity of the enterprise. Therefore, there is no doubt about the fact that both Ford and Drucker alike think profit a desirable result. In so far as profit is the essential or desirable result of business, it cannot be excluded from the purpose of a business. Thus, denial of the profit motive, as the denial of profit as the purpose of a business, should be rejected.

Here, we should direct our attention to the fact that Drucker declares that there are two kinds of basic law in carrying on a business: the first is the "law of avoiding loss" and the second is the "law of higher output" or the "law of increased productivity." The former concerns profit-making.²² Furthermore, it

²² cf. Drucker, *New Society*, chap. 4, pp. 52-63; and chap. 5, pp. 64-67.

must be interpreted as a law which acknowledges profit as the purpose of a business, which is distinctly contradictory to the first denial of the profit motive. However, the profit to be obtained in the "law of avoiding loss" is not "maximum profit", but merely "adequate profit" or, in the same meaning, "required minimum profit."

By such a process of thinking, Drucker arrives at another denial of the profit motive. In this case, profit is recognized as the purpose of a business, but the profit motive, as the intention to maximize profit, is denied. Let us examine the denial of the profit motive in this meaning.

The first law of business is to avoid loss through acquisition of a required minimum profit or adequate profit, not to maximize profit, Drucker insists. In this regard, we must ask whether a business should reject profit beyond a required minimum, and if so, why. However, Drucker does not provide clear answers to these questions.

If the law of avoiding loss merely states the minimum requirement of a business in the acquisition of profit, it does not deny the principle of profit maximization. It merely sets a lower limit, not the upper limit, of profit a business should obtain. As we have seen above, business activities are conscious, planned activities. Thus, if they are rational, they should always be planned for a profit. Drucker says: "Management, in order to manage, needs a profit objective at least equal to the required minimum profit, and yardsticks to measure its profit performance against this requirement."²³ This profit planning reveals the profit objective, which should be understood as a lower limit of profit to be acquired, not as the upper limit rejecting the acquisition of profit beyond it. Therefore, profit planning, which establishes a required minimum profit as the profit objective of a business does not imply the denial of profit maximization.

Next, we must examine what Drucker means by required minimum profit. He declares:

"The guiding principle of business economics...is not the maximization of profits; *it is the avoidance of loss*. Business enterprise must produce the premium to cover the risks inevitably involved in its operation... Indeed business enterprise must provide not only for its own risks... The enterprise must also make a contribution to the social cost...of a society; that is, it must earn enough to pay taxes. Finally it must produce capital for future expansion. But first and foremost it must have enough profit to cover its own risks."²⁴

Further, according to Drucker, the future risks of the enterprise itself, which should be covered by so-called "risk premium," contain four risks: replacement, obsolescence, risk proper or market risk and uncertainty.²⁵ It is apparent that what Drucker calls "required minimum profit" or "adequate profit" is not the moderate profit it is often understood to be, but is as large a profit as the greatest

²³ Drucker, *Practice*, p. 47.

²⁴ Drucker, *Practice*, pp. 46-47.

²⁵ cf. Drucker, *New Society*, pp. 55-59, and Drucker, *Practice*, pp. 76-77.

business effort to seek profit can realize. Drucker says: "This 'survival minimum' will, incidentally, be found to exceed present 'maxima' in many cases. This, at least, has been my experience in most companies where a conscious attempt to think through the risks of the business has been attempted."²⁶

In my opinion, this means that the denial of profit maximization as the purpose of a business enterprise and the denial of the profit motive in such a meaning cannot logically be acknowledged. When profit is recognized as the purpose of a business, the business is required to maximize profit, and the so-called "law of avoiding loss" should be understood as a guide to more rational realization of the profit motive or profit maximization.

Drucker further denies the profit motive as a personal or individual motive. Of course, it is obvious that the profit motive had its origin in what Drucker calls pre-industrial society as a personal or individual motive. Nevertheless, it cannot be said that the profit motive has always been and still is personal or individual. We should recognize that the profit motive is capitalistic, but its nature changes as capitalist society develops from a pre-industrial to an industrial society and the industrial enterprise comes into existence. That is, the profit motive has developed from a personal or individual profit motive to a corporate or organizational profit motive. My opinion is that what Drucker insists on can be interpreted as merely denying the validity of a "personal profit motive" and proposing, contrary to his own expression, a "corporate profit motive" or "organizational profit motive" which is the result of institutionalization of the profit motive. In this sense we can agree with his denial of a "personal profit motive." However, we must note that this is only a partial, not a complete, denial of the profit motive.

In summary, the essential denial of the profit motive in both Ford and Drucker is found in the denial of profit as the purpose of an industrial or business enterprise. Such a denial cannot logically be accepted. This means that other denials of the profit motive developed relative to the essential denial described above must also be logically rejected.

IV. *What the Denials of the Profit Motive Mean*

Is there any validity in the proposals of the service motive, or Fordism, and the creation of a customer, or neo-Fordism? Yes, we can find much that is valid if we release them from denials of the profit motive and interpret them as proposing a new profit motive. Such an understanding finds its moment in the fact that Ford proposes the service motive as the "law of business" and Drucker proposes the creation of a customer as the "objective needs of business enter-

²⁶ P. F. Drucker, "Business Objectives and Survival Needs: Notes on a Discipline of Business Enterprise," *The Journal of Business* of the School of Business of the University of Chicago, Vol. XXXI, No. 2 (April 1958).

prise." In other words, the business motive generally might always have been generated from the so-called "law of business" or "objective needs of business enterprise." Even the former profit motive could not have been an exception. Nevertheless, if the former profit motive should be denied, it is because of the fact that the law of business or the objective needs of business enterprise have substantially changed. The proposals of both Fordism and neo-Fordism can be interpreted to indicate such a substantial change due to the industrialization of business enterprise, which inevitably causes a substantial change in the profit motive as a business motive, that is, the institutionalization of the profit motive.

In the society of our time, which can be characterized as an industrial society, a business enterprise has become fixed in its resources, human as well as physical. Naturally, it must endure and survive permanently according to its own objective needs. Such a going concern can not be motivated by a desire to maximize short-run, temporary profit. On the contrary, it must try to maximize long-run profit. When a business is operated on the basis of short-run, temporary profit maximization, there are many possibilities that business activities will develop which sacrifice the "public" or the "customer" and neglect the social interest. However, when a business is operated on the basis of long-run profit maximization, business activities will, of necessity, contribute to the "public" or the "customer" and to the social interest. Here, profits are maximized through service to the public or creating a customer, and this is, in my opinion, just what both Fordism and neo-Fordism propose. In other words, Fordism and neo-Fordism do not deny the profit motive as a whole, but only the short-run, temporary profit motive.²⁷ Also, what is proposed as a substitute for the profit motive by both Fordism and neo-Fordism can not replace the profit motive completely, but only its short-run, temporary aspect. Thus, we can characterize both Fordism and neo-Fordism as being concerned with the long-run profit motive which has arisen from a substantial change in the profit motive through its institutionalization. Such a change in the profit motive may be characterized, in accordance with F. v. Gottl-Ottllienfeld, as the change from "Erwerb bei Hochpreishaltung" to "Erwerb bei Tiefpreishaltung."²⁸ At the same time, this implies a substantial change in the purpose of a business, because long-run profit maximization can only be achieved when a business survives forever in an economic society. Substantially, then, a business intends to endure and survive, and the "survival and prosperity of the enterprise", or "Unternehmungserhaltung" in the same meaning, becomes the substantial purpose of a business. In other words, the business activities designed to maximize profit become substantially those which maintain a business or enable it to survive and prosper in an economic society. Here, we should again be reminded that the service motive of Ford

²⁷ Here, we should remember that the profit motive denied by Ford is merely the "principle of high prices and low wages." Such a profit motive is undoubtedly the short-run, temporary profit motive.

²⁸ cf. F. v. Gottl-Ottllienfeld, *Fordismus, ueber Industrie und technische Vernunft*, 3 Aufl., Jena, 1926, S. 68.

was proposed as the "law of business," being an objective law which should be obeyed in order to realize the existence and development of a business, and that the creation of a customer was proposed by Drucker as the "objective needs of the enterprise" which must be satisfied in order to realize the survival and prosperity of the business.

At any rate, it cannot be denied that the so-called industrial enterprise is also included in the category of capitalistic enterprise, and that a capitalistic business enterprise should generally be operated to maximize profit, the profit motive or profit principle being its leading principle. The problem is whether the profit to be maximized is short-run, temporary profit or long-run profit. Both Fordism and neo-Fordism find their essential meaning in proposing that, for the institutionalized business enterprise of our time, which is forced to employ highly fixed human and physical resources, the main problem is not maximization of short-run, temporary profit but maximization of long-run profit.²⁹

Short-run profit may mean the amount of profit realized from each transaction, or more usually, the amount of profit realized during each business period, say each month, half year or year; and the aim of short-run profit maximization is to maximize such an amount of profit. Then, it is the maximization of an amount of profit. However, long-run profit maximization cannot have such a maximization of profit as its objective. What it attempts to maximize should symbolize the "survival and prosperity of the enterprise" or "Unternehmenserhaltung." Such an objective cannot be an amount of profit, but the rate of the periodical result of business activities to the amount of total capital invested. Such a rate may be found, at first, in the profit rate, or the rate of the periodical amount of profit (including interest) to the amount of total capital invested. Then, long-run profit maximization may be understood, at first, as the maximization of the profit rate. However, maximization of the profit rate is not sufficient to express modern, long-run profit maximization. Thus, another rate must be sought. As such a rate, we propose the value-added rate, or the rate of the periodical amount of value-added to the amount of total capital invested.³⁰ Thus, the long-run profit maximization of the modern industrial enterprise can be understood as maximization of the value-added rate, which symbolizes the purpose of a business, that is survival and prosperity.

We have discussed the similarity between the propositions of Drucker and Ford. We should, however, distinguish between them. Indeed, it is in the dif-

²⁹ Drucker consciously denies even long-run profit maximization. He writes: "Finally, 'profit maximization' is the wrong concept, whether it be interpreted to mean short-range or long-range profits or a balance of the two. The relevant question is, 'What minimum does the business need?' not 'What maximum can it make?'" (Drucker, "Business Objectives and Survival Needs," *op. cit.*).

However, we cannot understand why he denies maximization, especially the maximization of long-range profit.

³⁰ "Value-added" consists mainly of profit, interest and wages.

ferences between them that we should find the real meaning of neo-Fordism as the new development of Fordism.

Briefly, both Ford and Drucker make an institutional approach to the business enterprise of our time, but while Drucker is deeply conscious of such an institutional approach, Ford is not. In my opinion, differences between the two propositions arise from this very fact.

Both Fordism and neo-Fordism have some traces of ethical or subjective considerations, despite their assertions to the contrary, but the degree is higher in the case of Fordism. This is apparent in their definitions of the purpose of a business. As indicated above, "service" is more social, the "creation of a customer" is more concerned with the business itself. Such a difference can be understood as arising from the difference in soundness of their institutional approaches. While Ford grasps the business institution only intuitively, Drucker does so through his excellent structural analysis of business in its structural relation to an industrial society.

Differences resulting from the different institutional approaches of Ford and Drucker are most apparent in the policies or principles of business management derived therefrom. For example, while a high-wage policy in Fordism can be understood only as the "secret of high wages" to the business, not as the business's "need of high wages," neo-Fordism requires a "predictable income and employment plan" in order to increase business vitality. Fordism proposes anti-unionism; neo-Fordism acknowledges unionism and, further, proposes the need of "self-government of the plant-community." In addition, we should note that Fordism proposes centralized management; neo-Fordism persists in decentralized management or "management by objectives and self-control." What Drucker says concerning the latter closely resembles what Mary Parker Follett describes as management by "law of the situation".³¹

However, a discussion of such problems must be reserved for a later occasion. Our present purpose has been merely to explain that what Drucker describes and proposes can best be understood as a new development of Fordism or neo-Fordism.³²

³¹ Concerning the propositions of M. P. Follett, see the following:

H. C. Metcalf and L. Urwick, ed., *Dynamic Administration, the Collected Papers of Mary Parker Follett*, N. Y. and London, 1941.

L. Urwick, ed., *Freedom and Co-ordination, Lectures in Business Organization by Mary Parker Follett*, London, 1949.

³² For a discussion of the problems indicated, see my book *A Study of Drucker's Theory of Business Enterprise*, Tokyo, 1959, in Japanese. The present article is taken largely from the first chapter of this book.

PUBLICATIONS RECEIVED

Periodicals

Australia

The Economic Record, Vol. XXXI, No. 70.
Melbourne: Melbourne Univ.

Belgium

Annals de Sciences Économiques Appliquées,
17^e Année, Nos 1-3. Louvain: Institute
des Sciences Économiques Appliquées.

Bulletin d'Information et de Documentation,
XXXIV^{me} Année, Vol. 1 Nos 5, 6. Vol.
2 No 1. Bruxelles: Banque Nationale de
Belgique.

*Bulletin de l'Institut de Recherches Économi-
ques et Sociales*, XXV^e Année, Nos 2-5.
Louvain: Institut de Recherches Économi-
ques et Sociales de l'Université Catholique
de Louvain.

Canada

*The Canadian Journal Economic and Political
Science*, Vol. 25, Nos. 2, 3. Toronto: Univ.
of Toronto.

Canadian Statistical Review, Vol. XXXIV,
Nos 3-7. Ottawa: Dominion Bureau Univ.
of Statistics.

*Canadian Statistical Review (Weekly Supple-
ment)*, March 31-Aug. 11. Ottawa: Domi-
nion Bureau Univ. of Statistics.

National Accounts income and expenditure,
1958, No. 4, 1959, No. 1. Ottawa: Dominion
Bureau Univ. of Statistics.

Ceylon

Central Bank of Ceylon Bulletin, March-
July, 1959. Colombo: Central Bank of
Ceylon.

Denmark

Nationaløkonomisk Tidsskrift, 97 Bd. Hæfte
1, 2. Kobenhavn: Nationaløkonomisk
Tidsskrift.

Egypt

Economic Bulletin, Vol. XI, No. 4, Vol. XII,
No. 1. Cairo: National Bank of Egypt.

England

The Bodleian Library Record, Vol. VI, No.
3. Oxford: Bodleian Library.

Economic Digest, Vol. XII, Nos. 3-7. London:
Economic Research Council.

Economica, Vol. XXIV, No. 102. London:
The London School of Economics and
Political Science.

National Provincial Bank Review, No. 46.
London: National Provincial Bank.

Westminster Bank Review, 1959, May. London:

Westminster Bank Ltd.

France

Annuaire du Collège de France, 58^e Année:
Paris Imprimerie National.

*Bulletin Analytique de Documentation Politique
Economique et Société Contemporaine*, 13^e
Année, Nos 9-12, 14^e Année, Nos. 1-4.
Paris: Fondation National des Sciences Po-
litiques.

Bulletin d'Information Economique, No. 83.
Paris: Banque National pour le Commerce
et l'Industrie.

*Cahiers de L'Institut de Science Économique
Appliquée*, 1959, 76-89. Paris: Institut de
Science Économique Appliquée.

Cahiers Serie G, No. 6. Paris: Institut de
Science Économique Appliquée.

Etudes et Conjonctuer, 14^e Année, Nos. 3-9.
Paris: Institut National de la Statistique
et des Etude Economiques.

Population, 14^e Année, Nos. 1, 2. Paris:
Institut National d'Etudes Demographiques.

Problems Économiques, Nos. 548-605. Paris:
Secretariat du Gouvernement, Direction de
la Documentation.

Revue de L'Économie, Meridionale, Tome IV,
Nos. 25, 26. Montpellier: Centro Regional
de la Productivite & Études Économiques.
Revue Internationale de Droit Comparé, II^e
Année, No. 1. Paris: Societe de Legislation
Comaré.

Statistique & Etudes Financieres, Nos. 123-
127. *Suppl. Statistique*, Nos. 122-126. Paris:
Ministere des Finances.

Table Mensuelles, 1959. Jan.-Mars. Paris:
Secretariat General du Gouvernement, Direc-
tion de la Documentation.

Germany

*Mitlungen aus dem Institut für Raumforschung
Bonn*, Hefte. 41. Bonn: Institute für Twum-
forschung Bonn, Bad Godesberg.

Raumforschung und Raumordnung, 17 Jahrgang,
Hefte. 1, Bad Godesberg: Institute für
Raumforschung Bonn.

*Schriften des Instituts für Wirtschaftswissen-
schaften*, Nr. 9. Berlin: Instituts für Wirt-
schaftswissenschaften bie der Deutschen
Akademie.

Weltwirtschaftliches Arthiv, Band 82, Hefte.
1. Hamburg: Institut für weltwirtschaft
an der Universität Kiel.

Wirtschaftswissenschaft, Hefte. 2-4, 1959 Son-
derheft. 6. Berlin: Instituts für Wirt-
schaftswissenschaften bei der Deutschen
Akademie der Wissenschaften.

India

- The Eastern Economist*, Vol. XXXII, Nos. 11-26, Vol. XXXIII, Nos. 1-5. New Delhi: India Council of World Affairs.
- Gandhi Marg (A Quarterly Journal of Gandhi an Thought)*, Vol. 3, No. 3. Bombay: Gandhi Smarak Nidhi.
- Indian Journal of Economics*, Vol. XXXVI, No. 153. Allahabad: Univ. of Allahabad, the Dpt. of Economics and Commerce.
- Monthly Abstract of Statistics*, Vol. 12, Nos. 1-5. New Delhi: Central Statistical Organization.
- The National Sample Survey*, Nos. 14, 15. New Delhi: Central Statistical Organization.
- Sankhyā (The Indian Journal of Statistics)*, Vol. 20, Nos. 3, 4, Vol. 21, Nos. 1, 2. Calcutta: Indian Statistical Institute.

Israel

- The Israel Exploration Journal*, Vol. 8, No. 4. Jerusalem: The Jewish National and Univ. Library.
- Statistical Bulletin of Israel*, Vol. IX, Nos. 11, 12. Vol. X, Nos. 1-3-Tel-Aviv: Central Bureau of Statistics and Economic Research.

Italy

- Aggiornamenti Sociali*, Anno X, Nos. 2-7. Milano: Centro Studi Sociali.
- Bollettino*, Anno XIII, No. 6, Anno XIV, Nos. 1-3. Roma: Banco d'Italia, Amministrazione Centrale, Servizio Studi Economica.
- FAO Monthly Bulletin of Food and Agricultural Statistics*, Vol. VIII, Nos. 1-6. Roma: Food and Agricultural Organization of the United Nations.
- Italian Economic Survey*, 1959, Jan.-April. Roma: The Association of Italian Joint Stock Companies.
- Giornal degli Economisti e Annali di Economia*, Anno XVII, Nos. 9-12. Milano: Univerdità Commerciale Luigi Bocconi.
- L'industria rivista di Economia Politica*, 1958. N. 4, 1959. N. 1, 2. Milano: Editrice L'industrie Soc.
- Rassegna Economica*, Anno XIV, Nos. 1, 2. Roma: Associazione far le Società Italiane per Azioni.
- Ricerche Economiche*, Anno XIII, No. 1. Venezia: Istituto Universitario Laboratorio di Economia Politica.
- Rivista di Economia Agraria*, Vol. XIII, No. 4, Vol. XIV, No. 1. Roma: Istituto Nazionale di Economia Agraria.
- Servizio di documentazione*, N. (1959), 1, 2. Roma: Associazione far le Società Italiane Per Azioni Piazza Venezia.
- Sintesi Economica*, Anno X, No. 12, Anno XI, Nos. 1-5. Unione Italiana delle Camere di Commercio Industria e Agricoltura.
- Statistica*, Anno XIV, Nos 1, 2. Bologna: Istituto di Statistica delle Univ. di Bologna.

Studi Economici, Anno XIII, Nos. 5, 6, Anno XIV, Nos. 1, 2. Napoli: Università di Napoli.

Mexico

- Revista de Economia*, Vol. XXI, Nos. 11, 12, Vol. XXII, Nos. 1-6. Mexico: Institute de Investigaciones Sociales. la Universidad Nacional Autonoma.
- Revista Mexican d Sociologia*, Vol. XX, Nos. 2, 3. Mexico: Institute de Investigaciones. De la Universidad Nacional Autonoma

New Zealand

- Monthly Abstract of Statistics*, March-June, 1959. Wellington: The Government Statistics.

Portugal

- Bibliografia Sobre a Economia Portuguesa*, Vol. 1, 1948-1949. Lisboa: Instituto Nacional de Estatistica.
- Rivista de Economia*, Vol. XI, Fasculo 4. Lisboa: Eurico Colares Vieira.

South America

- Al Makilaba*, Vol. 3, Nos. 1, 2. Beirut: Librarg of the American Univ. of Beirut.
- Boletin Estadistico*, Año. 10 No. 12, Año 11, Nos. 1, 2. Buenos Aires: Banco Central de la Republica Argentina.
- Boletin Estadistica Banco de Guatemala*, Año. XII, Nos. 2-6. Guatemala: Banco de Guatemala.
- Bolitin de Estudios Economicos*, Vol. XIII, Num. 45. Universidad Comercial de Deusto Bilbao.
- Bolitin Mensual*, Nos. 368-376. Santiago: Banco Central de Chile.
- Bolitin Mensual de Estadistica*, Vol. 95-99 Bogota-Colombia: Direccion National de Estadistica.
- Crate Semanal de Café*, Nos. 7-27. Guatemala Banco de Guatemala.
- Cuaderno*, No. 11, Uruguay: Universidad de la Republica, Uruguay.
- Informe Economico*, Año. VII, Nos. 2-8. Guatemala: Banco de Guatemala.

Spain

- Boletin de Estudios Economicos*, Vol. XIX, No. 46. Bibao: Asociacion de Licenciados en Ciencias Economicos Universidad Comercial de Deusto.
- Revista de la Universidad de Madrid*, Vol. VII, No. 26. Madrid: Ministerio de Educacion Nacional.

Sweden

- Sociala Meddelanden*, 3-6, 1959. Uppsala: The University Library.

Swess

- International Labour Review*, Vol. LXXIX,

Nos. 3-6, Vol. LXXX, No. 1. Geneva: International Labour Office.
Kyklos, Vol. XII, Fasc. 2. Zürich: Kyklos.
Monatsbericht, 34 Jrg. Nos. 3-7. Zürich: Schweizerische National Bank.

Thailand

Current Statistics, Jan.-May, 1959. Bangkok: Bank of Thailand.

U.S.A.

The Accountants Digest, Vol. XXIV, No. 3. Vermont: The Account Digest.
The Accounting Review, Vol. XXXIV, Nos. 2, 3. N.Y.: American Institute of Certified Public Accountants.
The ACLS Newsletter, Vol. X, Nos. 2-4. Virginia: American Council of Learned Societies.
Agriculture, Vol. 5, Nos. 1, 2. Island: Univ. of Rhode Island.
Alabama Business, Vol. 29, Nos. 8-11. Alabama: Univ. of Alabama. Bureau of Business Research.
Alabama Retail Trade, Vol. 29, Nos. 7-11. Alabama: Univ. of Alabama Bureau of Business Research.
The American Economic Review, Vol. XLXI, Nos. 2, 3. Los Angeles: The American Economic Association.
The Annals of the American Academy, of Political and Social Science, May-July, 1959. Philadelphia: The American Academy of Political and Social Science.
Bulletin, Nos. 125, 126. Iowa: Iowa State College Library.
Bulletin of Business Research, Vol. XXXIV, Nos. 2-6. Ohio: The Ohio State Univ.
Bulletin of the Univ. of Toledo, Vol. XXXVI, No. 5. Toledo: Univ. of Toledo.
Bulletin of the Univ. of Utah, Vol. 50, Nos. 5-15. Utah: Univ. of Utah.
Business in Brief, No. 26. The Chase Nationale Bank of the City.
Business Prospects in 1959, Part 1, 2. Pennsylvania: Bureau of Business Research Univ. of Pittsburgh.
CED for Release, April 8-June 4, 1959. New York: Committee for Economics Development.
Civil Liberties, Nos. 169-171. New York: American Civil Liberties Union.
College and University Bulletin, Vol. 11, Nos. 9-14. Washington: National Education Association.
Collegiate News and Views, Vol. XII, No. 4. California: South-Western Publishing.
Current Economic Comments, Vol. 21, No. 2. Illinois: Univ. of Commerce and Business Administration.
Direction of International Trade, Vol. X, Nos. 4-7. N.Y.: Statistical Office of United Nations.
Economic Leaflets, Vol. XVIII, Nos. 4-8.

Gainesville: Univ. of Florida.
Essays in International Finance, No. 34, 1959. Princeton: Princeton Univ.
Farm Economics, 1959. 213, 214. N.Y.: New York State College of Agriculture, Dept. of Agriculture Ithaca.
Farme Science, Vol. 13, Nos. 3-10. Ames: Iowa State College.
Federal Reserve Bulletin, April-July, 1959. Washington: Board of Government of the Federal Reserve System.
Illinois Business Review, Vol. XVI, Nos. 3-7. Illinois: Univ. of Illinois.
Institute of Industrial Relations, No. 124. Los Angeles: Univ. of California.
International Financial News Survey, Vol. XI, Nos. 37-50, Vol. XII, Nos. 1-7. Washington: International Monetary Fund.
International Financial Statistics, Vol. XII Nos. 5-8. Washington: International Monetary Fund.
The Journal of Accountancy, Vol. 107, Nos. 4-7. N. Y.: American Institute of Certified Public Accountants.
The Journal of Air Law and Commerce, Vol. 26, No. 1. Illinois: North-Western Univ.
The Journal of Political Economy, Vol. LXVII, Nos. 1-3. Illinois: Illinois Univ. of Chicago.
Looking Ahead, Vol. 7, Nos. 2-5. Washington: National Planning Association.
Louisiana Business Bulletin, Vol. 21, No. 1. Louisiana: Louisiana State Univ.
The Macmillan Company Bulletin of New Books, Nos. 1244-1252. N.Y.: The Macmillan Company.
Montana Law Review, Vol. 20, No. 2. Missouli: Montana State Univ.
Monthly Review, March-May, 1959, San Francisco: Federal Reserve Bank of San Francisco.
Monthly Review of Credit and Business Conditions, Vol. 41, Nos. 4-7. N.Y.: Federal Reserve Bank of New York.
Oregon Business Review, Vol. XVIII, Nos. 3-7. Oregon: Univ. of Oregon, School of Business Administration.
Pacific Affairs, Vol. XXXII, Nos. 1, 2. N.Y.: Institute of Pacific Relations.
Pittsburgh Business Review, Vol. XXIX, Nos. 3-6. Pittsburgh: Pittsburgh Univ., Bureau of Business Research.
Population Bulletin, Vol. XV, Nos. 3-5. Washington: Population Reference Bureau.
Research Bulletin, No. 459-464. Ames: Iowa State College Library.
Rhode Island Bulletin, No. 343. Island: Univ. of Rhode Island.
The Southern Economic Journal, Vol. XXV, No. 4, Vol. XXVI, No. 1. N.C.: The Southern Economic Journal.
Special Report, No. 23, Iowa: Iowa State College Library.
Special Report, Nos. 52, 53. Washington: National Planning Association.

- State University of Iowa Studies in Natural History*. Vol. XX, No. 1. Iowa: State Univ. of Iowa.
- Texas Agricultural Extension Service*. No. 871-920. Texas: Texas Agricultural Experiment Station.
- The Trust Bulletin*, Vol. XXXVIII, Nos. 8-10. N.Y.: The American Banker's Association.
- Univ. of California Publications in Economics*, Vol. 18, No. 1, Los Angeles: Univ. of California.
- Univ. of Cincinnati Law Review*, Vol. 28, No. 2. Ohio: Univ. of Cincinnati.
- Univ. of Kansas City Review*, Vol XXV, Nos. 3, 4. Kansas City: Univ. of Kansas City.
- Utah Economic and Business Review*, Vol. 19, Nos. 4-8. Utah: Univ. of Utah.
- Vanderbilt Law Review*, Vol. XII, Nos. 2, 3. Tennessee: Vanderbilt Univ.
- Washington Univ. Law Quarterly*, Vol. 1959 No. 2. Washington: Washington Univ., School of Law.
- U.S.S.R.
- Vestnik Akademii Nauk*, Nos. 4-7, 1959. Moskwa: Fundamentalnaja Bibliotaka.
- Vestnik Leningradskogo Universiteta. Seriya Ekonomiki, Filosofii i Prava*, Nos. 1-4. Moskwa: Fundamentalnaja Bibliotaka. Akademii Nauk.

Books and Pamphlets

- Akademie der Wissenschaften und der Literatur. *Jahrbuch*. 1957. Maniz: 1959 Pp. 278.
- Amphoto. *Photographic Books*. New York: 1959 Pp. 24.
- Associazione fra le Societa Italiane per Azioni. *La Disciplina Fiscale Degli Ammortamenti*. Roma: 1959 Pp. 513.
- Banco de Espana. *Memoria leida en la Junta General de Accionistas del Banco de Espana*. Madrid: 1959 Pp. 63.
- The Same. *Informe Sober la Evolucion de Economia Espanola en 1958*. Madrid: 1959 Pp. 143.
- Bureau of Business Research, University of Pittsburgh. *Bibliography and Valorem Tax Administration*. Pittsburgh: 1959 Pp. 213.
- Central Statistical Organisation. *Estimates of National Income 1948-49 to 1957-58*. India: 1959 Pp. 24.
- The Same. *Charting Manual*. India: 1958 Pp. 69.
- Lester V. Chandler. *The Economics of Money and Banking*. N.Y.: 1959. Pp. 549.
- College of Education, The Univ. of Toledo. *Bulletin of Univ. of Toledo*. Ohio: 1959. Pp. 218.
- Committee for Economic Development. *The European Common Market & its Meaning to the United States*. 1959. Pp. 159.
- Danmarks Nationalbank. *Danmarks Nationalbank port and Accounts for the Year 1958*. Kobenhaven: 1959. Pp. 48.
- Department of Statistics Wellington. *Report on the Inter-Industry Study of the New Zealand Economy For the Year*. New Zealand. 1959. Pp. 40.
- Dominion Bureau of Statistics. *National Accounts Income and Expenditure 1958*. Canada: 1959. Pp. 34.
- Economic Research Institute, American Univ. of Beirut. *Middle East Economic Papers 1958*. Levanon: 1959. Pp. 114.
- Edwaed C. Bursk. *Business and Religion. A New Depth Dimension in Management*—N.Y.: 1959. Pp. 212.
- Emil Korner. *The Law of Freedom as the Remedy for War and Poverty*. London: 1959 Pp. 8.
- Frank T. Stockton. *Salaried Women in Upper Level Positions in Kansas Business Frims*. Kansas City: 1959. Pp. 38.
- Iowa State College. *A Report of the Division of Agriculture July 1, 1957, through June 30, 1958*. Iowa: 1959. Pp. 73.
- National Planning Association. *United States Business Performance Abroad*, Washington: 1959. Pp. 80.
- Charles F. Philips. *A Tax program to Encourage Puerto Rico's Economic Growth*. (Planning Pamphlet No. 105). Washington: 1958. Pp. 38.
- Robourtt Lekachman. *The Economic of Money and Banking*. N.Y.: 1959. Pp. 549.
- Smith College. *The Sophia Smith Collection*. Northampton: 1959. Pp. 15.
- Paul J. Strayer. *Fiscal Policy and Politics*. N.Y.: 1959, Pp. 305.
- Thomas D. Cabot. *Common Market Economic Foundation for a U.S. of Europe*. N.Y.: 1959. Pp. 28.
- United States Government Printing Office. *Annual Report of the Board of Regents of the Smithsonian Institution 1957*. Washington: 1958. Pp. 498.
- U.S. Treasury Dept. *Statistics of Income 1956, Fiduciary Income Tax Returns for 1956*. Washington: 1959. Pp. 48.
- The Same. *Statistics of Income 1956, Estate and Gift Tax Returns*. Washington: 1959. Pp. 39.
- The Same. *Statistics of Income 1956-57, Corporation Income Tax Returns*. Washington: Pp. 206.
- The Same. *Statistics of Income for 1957*. Washington: 1959. Pp. 13.